May 2014

# JAMECO®
ELECTRONICS

# ELECTRONIC ESSENTIALS

1-800-831-4242 | www.Jameco.com

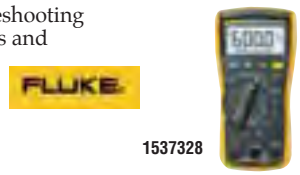
# FEATURED PRODUCTS

## Fluke Multimeters

★Web Code: HBK

The most trusted name in test equipment is here for all your troubleshooting and measurement needs. Find the entire line of Fluke meters, scopes and test leads online.

- CAT IV 600V and CAT III 1000V electrical safety rated
- 6000-count display • True RMS readings
- Capacitance, frequency, diode test, temperature measurement functions
- Measures up to 10A continuously




| Part No. | Mfr. Part No. | Description | Price |
|---|---|---|---|
| 1537328 | FLUKE-115 / 2538790 | CAT III 600V rated, large white LED backlight. Includes TL75 test leads, holster, user's manual and 9V battery | $159.95 |
| 1537336 | FLUKE-117,2538815 | CAT III 600V rated with non-contact voltage. Large white LED backlight. Includes TL75 test leads, holster, user's manual and 9V battery | 179.95 |
| 185535 | FLUKE-179 ESFP | CAT III 1000V and CAT IV 600V rating, built-in thermometer. Includes thermocouple probe, ergonomic case with holster and test leads | 299.95 |
| 2173642 | FLUKE-179/1AC-II KIT | Includes P/N 185535, 1ACII voltage detector, test leads, test probes, alligator clips, magnetic hanger, temperature probe and carrying case | 349.95 |
| 2173634 | FLUKE-87-5/E2 KIT | Includes 87-5 meter (P/N 2113471), TL75 test leads, AC72 alligator clips, magnetic hanger, temperature probe and carrying case | 474.95 |

## Gabotronics World's Smallest Oscilloscopes

★Oscilloscopes & Accessories — Enter Web Code: RCG

XScopes are a combination of three electronic instruments: mixed signal oscilloscope, arbitrary waveform generator and protocol sniffer. XScopes can also be used as development boards for the AVR XMEGA microcontroller. The Xprotolab and Xminilab can be plugged directly on a breadboard.

- Mixed signal oscilloscope: simultaneous sampling of 2 analog and 8 digital signals
- Arbitrary waveform generator with advanced sweep options on all the wave parameters
- Protocol sniffer: SPI, I2C, UART • Spectrum analyzer with different windowing options and selectable vertical log and IQ visualization
- XY mode: for plotting Lissajous figures, V/I curves or checking the phase difference between two waveforms • Meter mode: VDC, VPP and frequency readout
- Advanced triggering system: normal/single/auto/free, with many trigger modes; adjustable trigger level and ability to view signals prior to the trigger
- Channel math: add, multiply, invert and average • Horizontal and vertical cursors with automatic waveform measurements and waveform references
- USB connectivity: Windows, Linux, Mac, Android • 4 tactile pushbutton switches (except 2205940) • Graphic OLED, 128x64 pixels, max. refresh rate 122Hz

| Part No. | Mfr. Part No. | Description | Display Size | Device Size (L x W x H) | 1 | 5 |
|---|---|---|---|---|---|---|
| 2205940 | GT-0007ℛ* | Xprotolab Plain, 3.3V only, PCB with headers | — | 2.0" x 1.0" | $22.95 | $19.95 |
| 2205907 | GT-0010ℛ | Xprotolab, 3.3V only, 40-60mA, breadboard mountable | 0.96" diagonal | 1.6" x 1.0" | 54.95 | 49.95 |
| 2205915 | GT-0005ℛ | Xminilab, 3.3V only, 45-75mA, breadboard mountable | 2.42" diagonal | 3.3" x 1.8" | 74.95 | 69.95 |
| 2205923 | GT-0012ℛ | Xprotolab Portable, 40-60mA, handheld size enclosure | 1.3" diagonal | 3.1" x 1.8" x 0.7" | 104.95 | 94.95 |
| 2205931 | GT-0015ℛ | Xminilab Portable, 45-75mA, handheld size enclosure | 2.42" diagonal | 3.2" x 2.2" x 0.7" | 129.95 | 114.95 |

*Requires PC interface software to visualize and control the signals (see Web for download details)

## Precision Adjustment Potentiometers

★Web Code: TDF

These quality precision potentiometers are built to improve resolution and provide superior performance that will last.

| Part No. | Ohms | Tolerance | Wattage | Number of Turns | Body Diameter | Price |
|---|---|---|---|---|---|---|
| 2200188 | 50 | 3% | 5 | 10 | 1.8" | $39.95 |
| 2201308 | 100 | 5% | 2 | 1 | 1.4" | 19.95 |
| 2198639 | 100 | 5% | 2 | 10 | 0.88" | 9.95 |
| 2198663 | 500 | 5% | 2 | 10 | 0.88" | 9.95 |
| 2201519 | 1k | 5% | 1 | 1 | 0.88" | 9.95 |
| 2198330 | 1k | 10% | 2 | 10 | 0.88" | 9.95 |
| 2198516 | 1k | 3% | 2 | 10 | 0.88" | 49.95 |

| Part No. | Ohms | Tolerance | Wattage (W) | Number of Turns | Body Diameter | Price |
|---|---|---|---|---|---|---|
| 2198532 | 1k | 3% | 2 | 10 | 0.88" | $49.95 |
| 2199404 | 2k | 10% | 0.75 | 1 | 1.3" | 29.95 |
| 2201455 | 2k | 1% | 0.75 | 1 | 1.3" | 14.95 |
| 2194806 | 2k | 10% | 2 | 10 | 0.88" | 14.95 |
| 2194793 | 2k | 3% | 5 | 10 | 1.8" | 49.95 |
| 2199332 | 10k | 10% | 1 | 1 | 0.88" | 9.95 |
| 2201498 | 10k | 5% | 1.5 | 3 | 0.88" | 14.95 |
| 2201480 | 20k | 1% | 5 | 10 | 1.8" | 19.95 |
| 2198591 | 30k | 5% | 2 | 10 | 0.88" | 49.95 |
| 2200145 | 30k | 3% | 5 | 10 | 1.8" | 49.95 |
| 2201471 | 50k | 2% | 0.5 | 1 | 0.5" | 9.95 |
| 2199463 | 50k | 5% | 20 | 40 | 3.3" | 49.95 |
| 2199324 | 100k | 10% | 1 | 1 | 0.88" | 9.95 |

## Mean Well LPV Series LED Power Supplies

★Web Code: LPP

- Constant voltage design • UL1310 Class 2 power unit, pass LPS • 100% full load burn-in test • Withstand 300VAC surge input for 5 seconds
- Fully encapsulated plastic case with IP67 level protection • Short-circuit, overload, over-voltage protection • Input: 90-264VAC @ 47-63Hz, or 127-370VDC

| Part No. | Mfr. Part No. | Voltage @ Current | Power (W) | Size (L" x W" x H") | Efficiency | 1 | 10 |
|---|---|---|---|---|---|---|---|
| 2103249 | LPV-60-5ℛ | 5V @ 8A | 40 | 6.4 x 1.7 x 1.3 | 76% | $18.95 | $16.95 |
| 2102596 | LPV-20-12ℛ | 12V @ 1.67A | 20 | 4.6 x 1.4 x 1.0 | 81% | 11.95 | 9.95 |
| 2103169 | LPV-60-12ℛ | 12V @ 5A | 60 | 6.4 x 1.7 x 1.3 | 83% | 18.95 | 16.95 |
| 2102609 | LPV-20-15ℛ | 15V @ 1.33A | 20 | 4.6 x 1.4 x 1.0 | 83% | 9.95 | 8.95 |
| 2102617 | LPV-20-24ℛ | 24V @ 0.84A | 20 | 4.6 x 1.4 x 1.0 | 83% | 11.95 | 9.95 |
| 2102801 | LPV-60-24ℛ | 24V @ 2.5A | 60 | 6.4 x 1.7 x 1.3 | 86% | 18.95 | 16.95 |
| 2102625 | LPV-60-36ℛ | 36V @ 1.67A | 60 | 6.4 x 1.7 x 1.3 | 86% | 18.95 | 16.95 |
| 2102633 | LPV-60-48ℛ | 48V @ 1.25A | 60 | 6.4 x 1.7 x 1.3 | 86% | 18.95 | 16.95 |

# ELECTRONIC ESSENTIALS

We all lead very busy lives and shopping for components can be time consuming. Jameco's Electronic Essentials Catalog is designed to help you access the components you need quickly.

On the pages ahead you will find our most popular components. There's no need to wade through thousands of pages or juggle multiple browser windows to find our most popular products. If you need to access our big catalog or full inventory, both are just a click away at Jameco.com.

**Ordering is Fast and Easy with Jameco**

**People.** When placing an order over the phone, rest assured that we won't make you push buttons to navigate through our phone system. We have real people answering the phone. Our technical team will help you select the right components for your design and our sales team will make sure you get the parts you want at the best prices.

**Price.** We price our products below our competitors and offer low-cost brands others don't – so you won't have to do a lot of shopping around.

**Safe.** We work hard to eliminate any risk of purchasing electronic components. We have more than 40 years experience successfully taking care of our customers. And, if by chance there is a problem, just call us and we'll solve the problem. Finally, we give you direct access to our management team at Management@Jameco.com.

**Shipping.** Order by 6 p.m. Eastern time on business days and your order will ship the same day.

Jameco makes ordering electronic components fast and easy.

## The Jameco Difference

### Customer Service

We work hard to provide the best customer service in the industry. Our management team's first priority is listening and responding to customer feedback. You can email the management team directly at Management@Jameco.com with your feedback and expect a prompt and personal response.

### Improved Shipping Options

Jameco has been hard at work expanding shipping options which for many have significantly reduced shipping costs. Whether you are looking for low pricing on air shipping or just want it as inexpensive as possible, Jameco's expanded options start at less than $4.

### Low Price Options

3 LEVELS OF SAVINGS

| NAME BRANDS | HOUSE BRANDS | SPECIAL BUY |
|---|---|---|

We've designed low prices into our process. Jameco carries three low-priced options from Brand Names, to Jameco's House Brands to Jameco Special Buys.

We are franchised distributors for over 200 Brand Name products and we actively price these products below our competitors. We also are famous for our Jameco House Brands (ValuePro, ReliaPro, BenchPro and KitPro) where we provide the same core functionality at a fraction of the price. But we take low pricing a step further with our Special Buys. Look for green pricing coding throughout the catalog for our best priced products.

### Catalog Tools

Enter the Web Code in the product search box

*Power Cords — Enter Web Code UBF

Jump from catalog to website seamlessly with Jameco's exclusive Web Codes. By simply entering the three character code into the Jameco.com search box, you'll find more information, additional Web-only products, and the latest pricing and availability information. Don't search; simply step from catalog to the website without missing a beat.

FedEx Lower Freight Pricing with FedEx

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*Prices and discounts are subject to change without notice.*

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## AC-to-DC "Slim Line" Regulated Switching Wall Adapters

**Output connector: 2.1mm x 5.5mm F2 (center positive)**

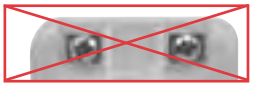
Compact in size and lightweight, they are the perfect power solution in all those applications where space is critical. And their high efficiency satisfies requirements for minimizing power losses. You no longer have to deal with traditional wall adapters that block unused outlets in wall plates and power strips/surge protectors.

- 2-wire AC input
- Output cord length: 6'
- Input voltage: 100 – 240VAC @ 47-63Hz
- Color: black
- One-year warranty

All are UL/CUL approved

*Web Code: CBQ

We'll Brand the Adapters With Your Company Name Call 1-800-831-4242 for Details



| Part No. | Manufacturer | Output Rating Volt (VDC) | Output Rating Curr. (mA) | Size (in.) (H x W x D) | Wt. (lbs.) | Pricing 1 | Pricing 10 | Pricing 50 | Pricing 100 |
|---|---|---|---|---|---|---|---|---|---|
| 251565 | ReliaPro | 3.3 | 1500 | 2.5x1.1x1.7 | 0.2 | $10.95 | $9.95 | $8.95 | $7.49 |
| 251600 | ReliaPro | 3.3 | 2500 | 2.9x1.1x1.7 | 0.3 | 11.95 | 10.95 | 9.95 | 8.49 |
| 2173010 | Phihong | 5 | 400 | 1.9x1.4x0.9 | 0.1 | 7.95 | 6.95 | 6.25 | 5.95 |
| 252701 | ReliaPro | 5 | 500 | 2.9x1.1x1.7 | 0.3 | 10.95 | 9.95 | 8.95 | 7.95 |
| 2126125 | OEM | 5 | 800 | 1.9x1.6x0.9 | 0.1 | 7.95 | 6.95 | 6.25 | 5.95 |
| 1940660 | Mean Well | 5 | 1000 | 2.6x1.3x1.9 | 0.2 | 9.49 | 8.49 | 7.95 | 7.49 |
| 252720 | ReliaPro | 5 | 1000 | 2.5x1.1x1.7 | 0.2 | 8.95 | 7.95 | 7.49 | 6.95 |
| 252728 | ReliaPro | 5 | 1500 | 2.5x1.1x1.7 | 0.2 | 11.95 | 10.95 | 9.95 | 8.95 |
| 210894 | ReliaPro | 5 | 2000 | 2.9x1.4x2.2 | 0.2 | 12.95 | 11.95 | 10.95 | 9.95 |
| 2138724 | Jentec | 5 | 2500 | 2.4x1.9x1.1 | 0.4 | 9.95 | 8.95 | 7.95 | 6.95 |
| 252736 | ReliaPro | 5 | 2500 | 2.9x1.3x2.2 | 0.3 | 14.95 | 13.49 | 11.95 | 10.49 |
| 2082222 | ReliaPro | 5 | 3000 | 2.9x1.3x2.2 | 0.3 | 9.95 | 8.95 | 7.95 | 6.95 |
| 2145078 | ReliaPro | 6 | 500 | 2.5x1.7x1.1 | 0.3 | 9.95 | 8.95 | 7.95 | 6.95 |
| 1940678 | Mean Well | 7.5 | 800 | 2.6x1.3x1.9 | 0.2 | 9.49 | 8.49 | 7.95 | 7.49 |
| 252753 | ReliaPro | 9 | 500 | 2.5x1.1x1.7 | 0.2 | 10.95 | 9.95 | 8.95 | 7.95 |
| 1940686 | Mean Well | 9 | 660 | 2.6x1.3x1.9 | 0.2 | 9.49 | 8.49 | 7.95 | 7.49 |
| 1950841 | ReliaPro | 9 | 1000 | 2.5x1.1x1.7 | 0.2 | 13.95 | 12.49 | 10.95 | 9.95 |

| Part No. | Manufacturer | Output Rating Volt (VDC) | Output Rating Curr. (mA) | Size (in.) (H x W x D) | Wt. (lbs.) | Pricing 1 | Pricing 10 | Pricing 50 | Pricing 100 |
|---|---|---|---|---|---|---|---|---|---|
| 252779 | ReliaPro | 9 | 1200 | 2.9x1.3x2.2 | 0.3 | $13.95 | $12.49 | $10.95 | $9.95 |
| 252786 | ReliaPro | 9 | 1500 | 2.9x1.3x2.2 | 0.3 | 15.95 | 14.49 | 12.95 | 11.49 |
| 2173132 | ReliaPro | 9 | 2000 | 2.8x2.0x1.3 | 0.3 | 16.95 | 15.49 | 13.95 | 11.49 |
| 252795 | ReliaPro | 12 | 250 | 2.5x1.1x1.7 | 0.2 | 8.95 | 7.95 | 6.95 | 6.25 |
| 252808 | ReliaPro | 12 | 500 | 2.5x1.1x1.7 | 0.2 | 8.95 | 7.95 | 7.49 | 6.95 |
| 1940694 | Mean Well | 12 | 500 | 2.6x1.3x1.9 | 0.2 | 9.49 | 8.49 | 7.95 | 7.49 |
| 2150758 | ReliaPro | 12 | 500 | 2.5x1.7x1.1 | 0.2 | 7.95 | 6.95 | 6.25 | 5.95 |
| 252816 | ReliaPro | 12 | 600 | 2.5x1.1x1.7 | 0.2 | 11.95 | 10.95 | 9.95 | 8.95 |
| 2151005 | DVE | 12 | 1000 | 2.7x1.8x1.1 | 0.2 | 10.95 | 9.95 | 8.95 | 7.95 |
| 252824 | ReliaPro | 12 | 1000 | 2.9x1.3x2.2 | 0.3 | 12.95 | 11.49 | 9.95 | 8.95 |
| 252833 | ReliaPro | 12 | 1250 | 2.9x1.3x2.2 | 0.3 | 13.95 | 12.95 | 11.95 | 10.95 |
| 2167656 | ReliaPro | 12 | 1500 | 2.9x1.7x1.3 | 0.3 | 10.95 | 9.95 | 8.95 | 7.95 |
| 1950497 | ReliaPro | 12 | 2000 | 2.9x2.1x1.3 | 0.4 | 15.95 | 14.49 | 12.95 | 11.49 |
| 254757 | ReliaPro | 15 | 800 | 2.9x1.3x2.2 | 0.2 | 12.95 | 11.49 | 10.49 | 9.49 |
| 252904 | ReliaPro | 15 | 1000 | 2.9x1.3x2.2 | 0.3 | 13.95 | 12.95 | 11.95 | 10.95 |
| 252866 | ReliaPro | 24 | 500 | 2.9x1.3x2.2 | 0.3 | 12.95 | 11.95 | 10.95 | 9.95 |
| 2076341 | ReliaPro | 24 | 630 | 2.9x1.3x2.2 | 0.3 | 12.95 | 11.95 | 10.95 | 9.95 |

CEC

## AC-to-DC Regulated Switching Table-Top Power Supplies

We are happy to change the power plug on any listed table-top power supply to a connector of your choice for just $2.50 ea. Overmolding also available @ $4.00 ea. A 100 pc. minimum order applies.

◆ Polarity 1 (center negative)
Polarity 2 (center positive)

Female (F)

DIN (M)

2135558

2129158

2099286

| Part No. | Manufacturer | Product No. | Output Volts (VDC)/ Current (A) | Output Connector ID x OD/F = female; M = male; Polarity ◆ | Input VAC@Hz | Output Power (W) | LED Ind. | Size (L" x W" x H") | Cords (DC/AC) | Wt. (lbs.) | Agency Approvals | Pricing 1 | Pricing 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **3-Wire AC Input – Regulated Switching Table-Top – Single Output** | | | | | | | | | | | | *Web Code: DDZ | |
| 2135558 | Joden | JSE-02512-9 | +12/1.5 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 18 | No | 3.4 x 2.2 x 1.3 | 6'/* | 0.5 | UL/CUL/TUV | $8.95 | $7.95 |
| 1940416 | Mean Well | GS18A12-P1JU | +12/1.5 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 18 | Yes | 3.7 x 2.1 x 1.4 | 6'/6' | 0.5 | UL/CUL/TUV/CE | 11.95 | 10.95 |
| 2135507 | SPC Technology | SA121A6F-11 | +12/1.6 | 2.1mm x 5.5mm F 2 | 100-250@47-63 | 19 | No | 3.2 x 2.2 x 1.9 | 6'/* | 0.2 | UL/CUL/TUV/CE | 8.95 | 7.95 |
| 2099868 | DVE | DSA-0421S | +12/2.0 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 24 | Yes | 3.7 x 2.2 x 1.3 | 6'/6' | 0.4 | UL/CUL/TUV/CE | 10.95 | 9.95 |
| 1940601 | Mean Well | GS25A12-P1JU | +12/2.08 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 25 | Yes | 3.7 x 2.1 x 1.4 | 4'/6' | 0.5 | UL/CUL/TUV/CE | 11.95 | 10.95 |
| 2154978 | ReliaPro | GQ65120250-E1 | +12/2.5 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 30 | No | 3.6 x 1.9 x 1.3 | 6'/* | 0.5 | TUV(US)/CE | 15.95 | 14.95 |
| 2129158 | Sparkle Power | FSP040-DGAA1 | +12/3.33 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 40 | Yes | 4.3 x 2.0 x 1.2 | 5'/* | 0.5 | UL/CUL/TUV/CE | 20.95 | 18.95 |
| 1952345 | Mean Well | GS40A12-P1J | +12/3.34 | 2.1mm x 5.5mm F 2 | 90-264@47-63 | 40 | Yes | 4.9 x 2.0 x 1.3 | 4'/* | 0.7 | UL/CUL/TUV/CE | 15.95 | 14.49 |
| 2079357 | Mean Well | GS40A12-P1M | +12/3.34 | 2.5mm x 5.5mm F 2 | 90-264@47-63 | 40 | Yes | 4.9 x 2.0 x 1.3 | 4'/* | 0.7 | UL/CUL/TUV/CE | 15.95 | 14.49 |
| 1940264 | ReliaPro | EA1050E | +12/3.5 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 42 | Yes | 4.7 x 2.4 x 1.4 | 4'/* | 0.6 | UL/CUL/TUV/CE | 15.95 | 14.49 |
| 1940272 | ReliaPro | GQ65-120416-EI | +12/4.16 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 50 | Yes | 4.5 x 1.9 x 1.4 | 4'/* | 0.6 | TUV(US)/CE | 18.95 | 17.95 |
| 1952370 | Mean Well | GS60A12-P1J | +12/5.0 | 2.1mm x 5.5mm F 2 | 90-264@47-63 | 60 | Yes | 4.9 x 1.9 x 1.2 | 4'/* | 0.7 | UL/CUL/TUV/CE | 17.95 | 15.95 |
| 1940459 | Mean Well | GS18A24-P1J | +24/0.75 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 18 | Yes | 3.7 x 2.1 x 1.4 | 6'/* | 0.5 | UL/CUL/TUV/CE | 11.95 | 10.95 |
| 1940635 | Mean Well | GS25A24-P1JU | +24/1.04 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 25 | Yes | 3.7 x 2.1 x 1.4 | 6'/6' | 0.5 | UL/CUL/TUV/CE | 11.95 | 10.95 |
| 380577 | Mean Well | ES25A24-P1MU | +24/1.04 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 25 | Yes | 3.7 x 2.1 x 1.4 | 6'/6' | 0.6 | UL/CUL/TUV/CE | 19.95 | 17.95 |
| 2172789 | ReliaPro | EA1030D1 | +24/1.25 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 30 | Yes | 3.8 x 1.7 x 1.2 | 6'/6' | 0.4 | UL/CUL/TUV/CE | 15.49 | 14.95 |
| 1952353 | Mean Well | GS40A24-P1J | +24/1.67 | 2.1mm x 5.5mm F 2 | 90-264@47-63 | 40 | Yes | 4.9 x 2.0 x 1.2 | 6'/* | 0.7 | UL/CUL/TUV/CE | 15.95 | 14.49 |
| 1537256 | ReliaPro | 0H-1048A2401700U-U | +24/1.7 | 2.5mm x 5.5mm F 2 | 90-264@47-63 | 40 | Yes | 4.5 x 2.0 x 1.3 | 6'/* | 0.5 | UL/CUL/CE | 15.95 | 14.49 |
| 1942788 | ReliaPro | EA1050B-240 | +24/2.5 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 60 | Yes | 4.8 x 2.4 x 1.4 | 6'/* | 1.8 | UL/CUL/TUV/CE | 18.49 | 15.49 |
| 1952214 | Mean Well | GS60A24-P1J | +24/2.5 | 2.1mm x 5.5mm F 2 | 90-264@47-63 | 60 | Yes | 4.9 x 2.0 x 1.3 | 6'/* | 0.7 | UL/CUL/TUV/CE | 17.95 | 15.95 |
| 1950913 | ReliaPro | EA1050B-240 | +24/2.5 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 60 | Yes | 4.8 x 2.4 x 1.4 | 6'/* | 1.8 | UL/CUL/TUV/CE | 18.49 | 16.95 |
| 2172797 | ReliaPro | EA11001D-240 | +24/3.75 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 90 | Yes | 5.4 x 2.3 x 0.4 | 4'/* | 0.9 | UL/CUL/TUV/CE | 29.95 | 25.95 |
| 2078338 | Mean Well | GS90A24-P1M | +24/3.75 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 90 | No | 5.9 x 2.3 x 1.2 | 4'/* | 0.9 | UL/CUL/TUV/CE | 28.95 | 25.95 |
| 2135208 | Mean Well | GS120A24-P1M | +24/5.00 | 2.5mm x 5.5mm F 2 | 85-264@47-63 | 120 | Yes | 6.6 x 2.6 x 1.4 | 4'/* | 1.4 | UL/CUL/TUV/CE | 43.95 | 39.95 |
| 2099286 | Mean Well | GS220A24-R7B | +24/9.2 | 4-pin DIN M | 90-264@47-63 | 220 | Yes | 8.3 x 3.4 x 1.8 | 3.3'/* | 2.4 | UL/CUL/TUV/CE | 74.95 | 67.95 |

* See opposite page for AC power cord, P/N 38050 CEC

RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Switchcraft® Male & Female Power Jacks

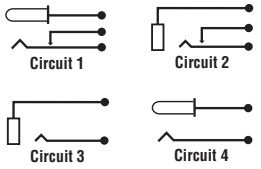
★Web Code: BAM

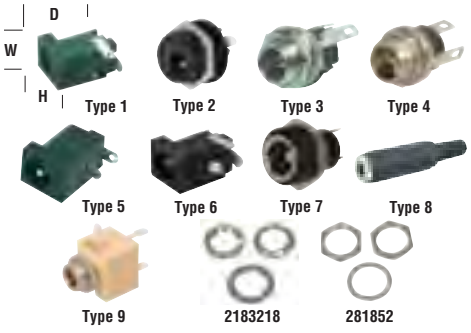
| Part No. | Mfr. | Product No. | Description Pin Dia. x OD | Dimensions H x W x D (mm) | Type/ Mount | Circuit/ Terminal | Pricing 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| 101178 | ValuePro | PP014 | 2.1 x 5.5mm male | 10.9 x 9.0 x 14.5 | 1/D | 1/A | $.39 | $.35 | $.29 |
| 151590 | ValuePro | DPJ-02IA | 2.1 x 5.5mm male | 18.0 x 12.6 Dia. | 2/C† | 1/A | .89 | .79 | .69 |
| 151555 | ValuePro | DPJ-026 [2] | 2.1 x 5.5mm male | 21.0 x 8.0 Dia. | 3/C | 1/A | 1.75 | 1.59 | 1.39 |
| 281851 | Switchcraft | 722A [2] | 2.1 x 5.5mm male | 21.0 x 8.0 Dia. | 4/C | 1/A | 4.95 | 4.49 | 3.95 |
| 137673 | ValuePro | PP013 | 2.1 x 5.5mm male | 10.9 x 9.0 x 14.5 | 5/D | 4/A | .45 | .39 | .35 |
| 2144690 | ValuePro | L5225 | 2.1 x 5.5mm male | 11.0 x 9.1 x 14.7 | 6/D | 1/A | .35 | .29 | .19 |
| 2151136 | ValuePro | HD2388C | 2.1 x 5.5mm male | 12.4 x 7.7 Dia. | 7/C* | 3/A | 1.19 | .99 | .89 |
| 159611 | ValuePro | PJ1014A | 2.1 x 5.5mm male | 57.5 x 12.6 Dia. | 8/F | 3/A | 1.75 | 1.59 | 1.39 |
| 202358 | ValuePro | HD2388 | 2.5 x 5.5mm male | 12.4 x 7.7 Dia. | 7/C* | 3/A | 1.19 | .99 | .89 |
| 281842 | Switchcraft | 712A [2] | 2.5 x 5.5mm male | 15.8 x 7.5 Dia. | 4/C | 1/A | 4.95 | 4.49 | 3.95 |
| 151563 | ValuePro | DPJ-026A [2] | 2.5 x 5.5mm male | 15.1 x 8.0 Dia. | 3/E | 1/A | 1.49 | 1.35 | 1.19 |
| 159506 | ValuePro | PJ1015A | 2.5 x 5.5mm male | 57.5 x 12.6 Dia. | 8/F | 3/A | 1.49 | 1.35 | 1.19 |
| 101143 | ValuePro | PJ0352 [1] | 3.5 mm female | 10.0 x 10.0 x 18.5 | 9/E | 2/A | .49 | .45 | .39 |
| 2183218 | ValuePro | M6HDWR | Additional Panel Mounting Hardware indicated with [1] | | | | .69 | .59 | .49 |
| 281852 | Switchcraft | 5/16-32HDWR | Additional Panel Mounting Hardware indicated with [2] | | | | .69 | .59 | .49 |

† Center offset *Plastic

| Terminals | Code |
|---|---|
| Solder eyelet | A |

| Mounting | Code |
|---|---|
| Panel | C |
| PCB | D |
| Panel & PCB | E |
| Cable | F |



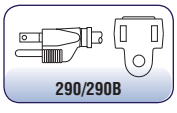

## 3-Conductor Pigtail & Detachable Power Cords

- Molded connectors • Voltage rating: 300 volts
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C
- 18 AWG, 125V, 10A, 1250VA

**2158258:** .55" x .62 strain relief

★Web Code: UBF

Plug Detail – Industry Standard Designations



### Power Cords with Pigtail (Unshielded) 290 Plug

| Part No. | Product No. | Wt. (lbs.) | Length | Color | Cord Type* | Pricing 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| 38009 | 17237 | .31 | 6' | Gray | SVT | $3.79 | $3.39 | $2.95 | $2.79 |
| 2158258 | 17236SR | .35 | 6' | Black | SVT | 3.49 | 3.09 | 2.75 | 2.49 |
| 37997 | 17236 | .30 | 6' | Black | SVT | 4.95 | 4.49 | 3.95 | 3.59 |
| 159410 | 17405B | .37 | 6' | Black | SJT | 4.95 | 4.49 | 3.95 | 3.59 |
| 38025 | 17238 | .42 | 8' | Black | SVT | 5.95 | 5.49 | 4.95 | 4.49 |
| 102007 | 17535B† | .49 | 10' | Black | SVT | 5.95 | 5.49 | 4.95 | 4.49 |

†European standard insulation color code

### Detachable Power Cords (Unshielded) 290B/386A Plugs

| Part No. | Product No. | Wt. (lbs.) | Length | Color | Cord Type* | Pricing 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| 38041 | 17249 | .37 | 6' | Beige | SVT | $3.49 | $2.95 | $2.49 | $1.95 |
| 38050 | 17250 | .36 | 6' | Black | SVT | 4.95 | 4.49 | 3.95 | 3.59 |
| 132118 | 17500 | .44 | 6' | Black | SJT | 4.95 | 4.49 | 3.95 | 3.25 |
| 2100275 | 17251B | .37 | 7'7" | Black | SVT | 3.49 | 2.95 | 2.75 | 2.49 |
| 1585637 | 171096 | .60 | 8' | Black | SVT | 4.95 | 4.49 | 3.95 | 3.59 |
| 102024 | 17501V | .55 | 10' | Black | SVT | 5.95 | 5.69 | 5.39 | 4.95 |

*Thermoplastic Cord Jacket Type: **SVT (Round):** Light service; **SJT (Round):** Junior service*

## 24VDC Enclosed Switching AC-to-DC Power Supplies

- 100% full-load burn-in test • Wide AC input range • Manufacturer warranty varies

★Web Code: EPS

| Part No. | Manufacturer | Mfr. Part No. | Output Voltage @ Current (min-max) | Output Power | Size (L" x W" x H") | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | PFC | Certification | Pricing 1 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Single Output** | | | | | | | | | | | | |
| 1919078 | Mean Well | RS-15-24 | +24V @ 0-0.625A | 15W | 2.5 x 2.0 x 1.1 | 200 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | $9.95 | $8.95 |
| 123272 | Mean Well | S-25-24 | +24V @ 0-1.1A | 26.4W | 3.9 x 3.8 x 1.4 | 100 | 0.5 | 0.5 | — | UL/TUV/CE | 18.95 | 16.95 |
| 323311 | Mean Well | RS-25-24 | +24V @ 0-1.1A | 26.4W | 3.0 x 2.0 x 1.1 | 120 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 11.95 | 10.95 |
| 323353 | Mean Well | RS-35-24 | +24V @ 0-1.5A | 36W | 3.9 x 3.2 x 1.4 | 120 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 12.95 | 11.95 |
| 123319 | Mean Well | S-40-24 | +24V @ 0-1.8A | 43W | 5.1 x 3.9 x 1.5 | 100 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 21.95 | 19.95 |
| 323417 | Mean Well | RS-50-24 | +24V @ 0-2.2A | 52.8W | 3.9 x 3.8 x 1.4 | 120 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 14.49 | 13.49 |
| 123352 | Mean Well | S-60-24 | +24V @ 0-2.5A | 60W | 6.3 x 3.8 x 1.5 | 150 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 24.95 | 22.49 |
| 323620 | Mean Well | RS-75-24 | +24V @ 0-3.2A | 76.8W | 5.1 x 3.9 x 1.5 | 120 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 17.95 | 15.95 |
| 2104250 | Mean Well | NES-75-24 | +24V @ 0-3.2A | 76.8W | 6.3 x 3.8 x 1.5 | 200 | 0.5 | 0.5 | — | UL/CUL/CE/CB | 18.95 | 16.95 |
| 194854 | Mean Well | SP-75-24 | +24V @ 0-3.2A | 76.8W | 7.0 x 3.9 x 1.3 | 100 | 0.5 | 0.5 | ✔ | UL/CUL/TUV/CE/CB | 32.95 | 29.95 |
| 194812 | Mean Well | SP-100-24 | +24V @ 0-4.2A | 100.8W | 7.0 x 3.9 x 1.8 | 150 | 0.5 | 0.5 | ✔ | UL/CUL/TUV/CE/CB | 39.95 | 35.95 |
| 201971 | Mean Well | S-100F-24 | +24V @ 0-4.5A | 108W | 7.8 x 3.9 x 1.5 | 150 | 0.5 | 0.5 | — | UL/TUV/CE/CB | 29.95 | 27.95 |
| 323732 | Mean Well | RS-100-24 | +24V @ 0-4.5A | 108W | 6.3 x 3.8 x 1.5 | 120 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 23.95 | 21.95 |
| 155651 | Power One | MAP110-1024CM | +24V @ 5A or +28V @ 4.3A | 120W | 7.0 x 4.3 x 1.8 | 240 | 0.5 | 1.0 | — | UL/CSA/TUV | 24.95 | 21.95 |
| 173404 | Mean Well | SP-150-24 | +24V @ 0-6.25A | 150W | 7.0 x 3.9 x 2.0 | 150 | 0.5 | 0.5 | ✔ | UL/CUL/TUV/CE/CB | 42.95 | 38.95 |
| 123450 | Mean Well | S-150-24 | +24V @ 0-6.5A | 156W | 7.0 x 4.3 x 2.0 | 240 | 0.2 | 0.2 | — | UL/CUL/TUV/CE/CB | 34.95 | 31.95 |
| 323855 | Mean Well | RS-150-24 | +24V @ 0-6.5A | 156W | 7.8 x 3.9 x 1.5 | 120 | 0.5 | 0.5 | — | UL/CUL/TUV/CE/CB | 24.95 | 22.49 |

*Primary Output

*For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

**Jameco carries the full line of Mean Well Power products. For additional products visit www.Jameco.com/meanwellproducts**

## LED Enclosed Power Supplies

★Web Code: LPP

### For Indoor and Outdoor Applications

- Suitable for LED lighting & moving sign application
- Short-circuit/overload/overvoltage/overtemperature protection
- 100% full-load burn-in test
- Universal AC input/full range
- Cooling by free air convection
- UL1310 class 2 power unit

PLN Series

**LPC/LPV/ELN/PLN Series**
- Working temperature: -30˚C to 50˚C
- Plastic case
- Inrush current: 40A/230VAC
- Constant voltage and current
- Two-year warranty

**CLG Series**
- Metal case
- Working temperature: -30˚C to 70˚C
- Adjustable voltage and current
- Inrush current: 40A/230VAC
- Built-in active PFC function
- Three-year warranty

**HLG Series**
- Metal case
- Working temperature: -30˚C to 60˚C
- Adjustable voltage and constant current
- Inrush current: 75A/230VAC
- Built-in active PFC function
- Three-year warranty

CLG Series

| Part No. | Manufacturer | Mfr. Part No. | Output Voltage @ Current (min-max) | Output Power (W) | Input Voltage (VAC @ Hz) | Size (L" x W" x H") | Enclosure Rating | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Pricing 1 | Pricing 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2101307 | Mean Well | LPC-35-700 | +9-48V @ 0.7A | 33.6 | 90-264 @ 47-63 | 5.8 x 1.6 x 1.2 | IP67 | 2.0 | 1.0 | UL/TUV/CE | $16.95 | $15.49 |
| 2102596 | Mean Well | LPV-20-12 | +12V @ 0-1.67A | 20 | 90-264 @ 47-63 | 4.6 x 1.4 x 1.0 | IP67 | 2.0 | 1.0 | UL/CUL/TUV/CSA/CE | 11.95 | 9.95 |
| 2103142 | Mean Well | LPV-35-12 | +12V @ 0-3A | 36 | 90-264 @ 47-63 | 5.8 x 1.6 x 1.2 | IP67 | 2.0 | 1.0 | UL/CUL/TUV/CSA/CE | 15.95 | 14.49 |
| 2122976 | Mean Well | PLN-45-12 | +12V @ 0-3.8A | 45.6 | 90-295 @ 47-63 | 7.1 x 2.4 x 1.3 | IP64 | 5.0 | 3.0 | UL/CUL/TUV/CE/PFC | 14.95 | 13.49 |
| 2103169 | Mean Well | LPV-60-12 | +12V @ 0-5A | 60 | 90-264 @ 47-63 | 6.4 x 1.7 x 1.3 | IP67 | 2.0 | 1.0 | UL/CUL/TUV/CSA/CE | 18.95 | 16.95 |
| 2105308 | Mean Well | ELN-60-12† | +12V @ 0-5A | 60 | 90-264 @ 47-63 | 7.1 x 2.4 x 1.4 | IP64 | 2.0 | 1.0 | UL/CUL/TUV/CSA/CE | 24.95 | 21.95 |
| 1918913 | Mean Well | PLN-60-12 | +12V @ 0-5A | 60 | 90-295 @ 47-63 | 7.1 x 2.4 x 1.4 | IP64 | 5.0 | 3.0 | UL/CUL/TUV/CE/PFC | 35.95 | 30.95 |
| 1918921 | Mean Well | CLG-60-12 | +12V @ 0-5A | 60 | 90-295 @ 47-63 | 7.7 x 2.4 x 1.5 | IP67 | 5.0 | 3.0 | UL/CUL/TUV/CE | 40.95 | 36.95 |
| 1585805 | Mean Well | CLG-100-12 | +12V @ 5A | 60 | 90-295 @ 47-63 | 8.7 x 2.7 x 1.5 | IP67 | 2.0 | 1.0 | UL/CUL/TUV/CSA/CE/PFC | 52.95 | 45.95 |
| 2148105 | Mean Well | HLG-120H-12B | +12V @ 10A | 120 | 90-305 @ 47-63 | 8.7 x 2.7 x 1.5 | IP67 | 2.0 | 0.5 | UL/CUL/TUV/CE/PFC | 69.95 | 63.95 |
| 2105050 | Mean Well | CLG-150-12C | +12V @ 11A | 132 | 90-295 @ 47-63 | 8.7 x 2.7 x 1.5 | IP67 | 1.0 | 0.5 | UL/CUL/TUV/CE/PFC | 54.95 | 49.95 |
| 1954877 | Mean Well | CLG-150-12A | +12V @ 0-11A | 132 | 90-295 @ 47-63 | 8.7 x 2.7 x 1.5 | IP65 | 1.0 | 0.5 | UL/TUV/CE | 54.95 | 49.95 |
| 2108699 | Mean Well | CLG-150-12† | +12V @ 11A | 132 | 90-295 @ 47-63 | 8.7 x 2.7 x 1.5 | IP67 | 1.0 | 0.5 | UL/CUL/TUV/CE/PFC | 54.95 | 49.95 |
| 2141780 | Mean Well | HLG-320H-12A | +12V @ 22A | 264 | 90-305 @ 47-63 | 9.9 x 3.5 x 1.7 | IP65 | 2.0 | 0.5 | UL/CUL/TUV/CB/CE/PFC | 122.95 | 104.95 |
| 2102617 | Mean Well | LPV-20-24 | +24V @ 0-0.84A | 20.2 | 90-264 @ 47-63 | 4.6 x 1.4 x 1.0 | IP67 | 2.0 | 1.0 | UL/CUL/CE | 11.95 | 9.95 |

*Primary Output † Dimmable options

## 24VDC DIN-Rail Switching Power Supplies

★Web Code: RBY

UL-508

- Short-circuit, overload, overvoltage protection
- Universal AC input range
- For DIN-Rail terminal blocks see Web, P/N 237083
- 100% full-load burn-in test
- Low cost, high reliability
- Soft-start circuit, limiting AC surge current

Fig. 1

Fig. 2

Fig. 3•

Fig. 4

Fig. 5•

Fig. 6

Fig. 7•

Fig. 8

Fig. 9

Fig. 10•

| Part No. | Mfr. Part No. | Fig. | Output Volts @ Curr. | Pwr (W) | Input Voltage (VAC @ Hz/VDC) | Input Current @ Max Load | Size (L" x W" x H") | Wt. (lbs.) | Certification | 1 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 192681 | DR-4524 | 1 | 24VDC @ 2A | 48 | 85-264 @ 47-63/120-370 | 1.5A(115V)/0.75A(230V) | 3.0 x 2.6 x 3.6 | 0.7 | UL/CUL/TUV/CE | $18.95 | $16.95 |
| 373246 | DR-60-24 | 2 | 24VDC @ 2.5A | 60 | 85-264 @ 47-63/124-370 | 1.8A(115V)/1.0A(230V) | 3.1 x 3.7 x 2.2 | 0.7 | UL/CUL/TUV/CE | 23.95 | 21.95 |
| 1943465 | MDR-60-24 | 3 | 24VDC @ 2.5A | 60 | 85-264 @ 47-63/120-370 | 1.8A(115V)/1.0A(230V) | 3.9 x 1.6 x 3.5 | 0.7 | UL/CUL/TUV/CE | 22.95 | 20.95 |
| 212282 | DR-75-24 | 4 | 24VDC @ 3.2A | 75 | 85-264 @ 47-63/120-370 | 2.0A(115V)/1.2A(230V) | 3.9 x 2.1 x 4.9 | 1.2 | UL/CUL/TUV/CE | 32.95 | 29.95 |
| 1943490 | MDR-100-24 | 5 | 24VDC @ 4A | 90 | 85-264 @ 47-63/120-370 | 1.3A(155V)/0.8A(230V) | 3.9 x 2.2 x 3.5 | 0.9 | UL/CUL/TUV/CE | 39.95 | 35.95 |
| 1943537 | DR-100-24 | 2 | 24VDC @ 4.2A | 100 | 88-264 @ 47-63/124-370 | 3.0A(115V)/1.6A(230V) | 2.2 x 3.9 x 3.7 | 0.8 | UL/CUL/TUV/CE | 32.95 | 29.95 |
| 212266 | DR-120-24 | 6 | 24VDC @ 5A | 120 | 88-132/176-264* @ 47-63 | 2.8A(115V)/1.7A(230V) | 2.6 x 3.9 x 4.9 | 1.4 | UL/CUL/TUV/CE | 40.95 | 36.95 |
| 1953727 | DRH-120-24 | 6 | 24VDC @ 5A | 120 | 340-550 @ 47-63/480-780 | 0.65A(400V)/0.6A(500V) | 3.9 x 2.6 x 4.9 | 1.7 | UL/CE | 60.95 | 54.95 |
| 2099374 | SDR-120-24† | 7 | 24VDC @ 5A | 120 | 88-264/124-370 @ 47-63 | 1.4A(115V)/10.7A(230V) | 4.5 x 1.6 x 4.9 | 1.5 | UL/CUL/TUV/CE | 61.95 | 55.95 |
| 221892 | DRP-240-24† | 8 | 24VDC @ 10A | 240 | 85-264 @ 47-63/120-370 | 2.8A(115V)/1.4A(230V) | 3.9 x 4.9 x 4.9 | 2.4 | UL/CUL/TUV/CE | 64.95 | 58.95 |
| 373123 | DRT-240-24 | 8 | 24VDC @ 10A | 240 | 3-phase 340-550 @ 47-63/480-780 | 0.95A(400V)/0.75A(500V) | 3.9 x 4.9 x 4.9 | 2.9 | UL/CUL/TUV/CE | 84.95 | 76.95 |
| 2081086 | SDR-240-24† | 7 | 24VDC @ 10A | 240 | 88-264 @ 47-63/124-370 | 2.6A(115V)/1.3A(230V) | 2.5 x 4.9 x 4.5 | 2.5 | UL/CUL/TUV/CE | 99.95 | 89.95 |
| 252663 | DRP-480-24† | 9 | 24VDC @ 20A | 480 | 180-264 @ 47-63/250-370 | 4.0A(230V) | 8.9 x 3.9 x 4.9 | 4.6 | UL/CUL/TUV/CE | 104.95 | 94.95 |
| 295938 | DRP-480S-24† | 9 | 24VDC @ 20A | 480 | 90-132/180-264* @ 47-63/254-370 | 11.0A(115V)/4.0A(230V) | 8.9 x 3.9 x 4.9 | 4.6 | UL/CUL/TUV/CE | 114.95 | 104.95 |
| 372577 | DRT-480-24 | 9 | 24VDC @ 20A | 480 | 3-phase 340-550 @ 47-63/480-780 | 1.7A(400V)/1.3(500V) | 8.9 x 5.0 x 3.9 | 5.5 | UL/CUL/TUV/CE | 119.95 | 109.95 |
| 2094944 | SDR-480-24† | 10 | 24VDC @ 20A | 480 | 88-264 @ 47-63/124-370 | 2.6A(115V)/1.3A(230V) | 4.9 x 3.4 x 5.0 | 4.9 | UL/CUL/TUV/CE | 154.95 | 139.95 |
| 373131 | DRT-960-24 | 9 | 24VDC @ 40A | 960 | 340-550 @ 47-63 | 2A(400V)/1.6A(500V) | 10.9 x 3.9 x 4.9 | 7.3 | UL/CUL/TUV/CE | 224.95 | 209.95 |

*Switch selectable † With Power Factor Correction • Rails shown in image above is not included

RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

Call for additional OEM PRICING – we carry major manufacturers.

## 12VDC Brushless Tubeaxial Fans

695050

mm to Inches Conversion Chart

★12V Web Code: LBZ

| mm | 6 | 6.8 | 10 | 15 | 20 | 25 | 28 | 30 | 32 | 35 | 38 | 40 | 45 | 51 | 60 | 70 | 75 | 76 | 80 | 92 | 94 | 95 | 97 | 120 | 125 | 126 | 127 | 150 | 172 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Inches | 0.24 | 0.27 | 0.40 | 0.60 | 0.80 | 1.00 | 1.10 | 1.18 | 1.26 | 1.40 | 1.50 | 1.60 | 1.80 | 2.00 | 2.36 | 2.76 | 2.95 | 2.99 | 3.15 | 3.63 | 3.70 | 3.74 | 3.82 | 4.72 | 4.92 | 4.96 | 5.00 | 5.90 | 6.77 |

| Part No. | Manufacturer | Mfr. Part No. | Voltage (VDC) | Size mm (W x H x D) | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection (Leads) | Pricing 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 212784 | Sunon | KDE1203PFB1-8V | 12 | 30 x 30 x 10 | 5.1 | Ball | 75 | 0.9 | UL/CUL/TUV/CE/VDE | 27 | 4" | $3.95 | $3.49 | $2.95 | $2.49 |
| 212741 | Sunon | KDE1235PFB2-8 | 12 | 35 x 35 x 10 | 4.5 | Ball | 60 | 0.8 | UL/CUL/TUV/CE/VDE | 21 | 3" w/ conn | 9.95 | 8.95 | 7.95 | 6.95 |
| 2099500 | Adda | AD0412HB-K96 (S) | 12 | 40 x 40 x 6 | 5.8 | Ball | 80 | 0.72 | UL/CUL/TUV/CE | 31 | 5.5" [1] | 8.95 | 7.95 | 6.95 | 6.25 |
| 1708473 | Sunon | KDE1204PFVX11.MS.A | 12 | 40 x 40 x 10 | 9.5 | Vapo | 150 | 1.8 | UL/CUL/TUV | 39 | 12" | 5.95 | 4.95 | 4.49 | 3.95 |
| 2082100 | Sunon | KDE1204PKBX-8 | 12 | 40 x 40 x 20 | 10 | Ball | 90 | 1.1 | UL/TUV/CE | 29.4 | 4" | 7.95 | 6.95 | 6.25 | 5.59 |
| 1928118 | Adda | AD0412HB-C50 | 12 | 40 x 40 x 20 | 10.5 | Ball | 100 | 1.2 | UL/CUL/TUV/CE | 31.9 | 12" | 8.95 | 7.95 | 6.95 | 6.25 |
| 139602 | Adda | AD0512HS-D71-LF | 12 | 51 x 51 x 15 | 12 | Sleeve | 100 | 1.2 | UL/CSA/CE | 29 | 6" | 8.95 | 7.95 | 6.95 | 6.25 |
| 1946025 | Evercool | EC6010M12CA | 12 | 60 x 60 x 10 | 15.5 | Ball | 160 | 1.9 | UL/CE/TUV | 30 | 9" [1] | 8.95 | 7.95 | 6.95 | 6.25 |
| 2125561 | AVC | DE07015R12U | 12 | 70 x 70 x 15 | 43 | Hydraulic | 700 | 8.4 | UL/CE/TUV | 46 | 8" w/ conn | 6.95 | 5.95 | 4.95 | 3.95 |
| 2132007 | Adda | AD0812HS-D70-LF | 12 | 80 x 80 x 15 | 38.6 | Sleeve | 250 | 3.0 | UL/CSA/TUV/CE | 33 | 12" | 7.95 | 6.95 | 5.95 | 4.95 |
| 2095365 | Adda | AD0812XX-D71 | 12 | 80 x 80 x 15 | 39.4 | Hypro | 350 | 4.2 | UL/CSA/TUV/CE | 42 | 11" | 8.95 | 7.95 | 6.95 | 5.95 |
| 1955010 | NMB | 3110KL-04W-B40 | 12 | 80 x 80 x 25 | 35.3 | Ball | 200 | 2.40 | UL/CSA/TUV/CE | 31 | 13" | 6.95 | 6.25 | 5.59 | 4.95 |
| 2125835 | Globe | B01138812H-3M | 12 | 80 x 80 x 25 | 39.8 | Ball | 230 | 2.76 | UL/CSA/TUV/CE | 32.6 | 10" w/ conn [1] | 4.95 | 3.95 | 2.95 | 2.49 |
| 249148 | Sunon | KDE1208PTB1-6(OC) | 12 | 80 x 80 x 25 | 42.5 | Ball | 220 | 2.6 | UL/CUL/TUV/CE | 36.5 | 7" | 5.95 | 4.95 | 3.95 | 3.49 |
| 1952783 | Nidec | TA350DC-M34138-34 | 12 | 92 x 92 x 25 | 35 | Ball | 160 | 1.92 | UL/CSA | 26.4 | 10" w/ conn [3] | 4.95 | 4.49 | 3.49 | 2.95 |
| 1952257 | AVC | C9025S12L | 12 | 92 x 92 x 25 | 37.2 | Sleeve | 150 | 1.8 | UL/CUL/TUV/CE | 26.2 | 5.5" [1] | 3.95 | 3.49 | 2.95 | 2.49 |
| 1928011 | Adda | AD1212US-A71GL | 12 | 120 x 120 x 25 | 98.6 | Sleeve | 500 | 6.0 | UL/CUL/TUV/CE | 39.1 | 2" w/ conn | 6.95 | 5.95 | 4.95 | 3.95 |
| 1952791 | NMB | 4715KL-04W-B46 | 12 | 120 x 120 x 38 | 118 | Ball | 900 | 8.4 | UL/CSA/TUV/CE | 47 | 6" w/ conn [2] | 7.95 | 6.95 | 6.25 | 5.59 |
| 2197564 | T&T | MWP1238M12B | 12 | 120 x 120 x 38 | 119.6 | Dual Ball | 700 | 8.4 | UL/TUV | 42.6 | 12" w/ conn | 10.95 | 9.95 | 8.95 | 7.95 |

[1] 3 leads; speed sensor [2] 3 leads; locked rotor protection [3] 4 leads; wired for Dell proprietary PWM circuit control w/ tach (blue), lock rotor (yellow) & fan guard
(All fans operate to their specs with or without the additional optional wire functions) For case mounting screws, P/Ns 2188481 or 2188490, see Web

★5VDC Fans — Web Code: TAS ★24VDC Fans — Web Code: QEF ★48VDC Fans — Web Code: MAJ ★DC & AC Plug Fan Power Cords — Web Code: GAE

## 120 & 220VAC Tubeaxial Fans

206309 2188676

★Web Code: ABJ

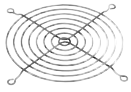
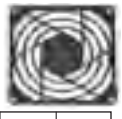
| Part No. | Manufacturer | Mfr. Part No. | Voltage (VAC) | Size mm (W x H x D) | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection | Pricing 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 146078 | Common Wealth | FP108AX-S1-B | 120 | 80 x 80 x 25 | 23 | Ball | 180 | 14 | UL/CE | 29 | 12" leads | $15.95 | $14.49 | $12.95 | $11.95 |
| 206309 | Adda | AA1281UB-AT | 120 | 120 x 120 x 38 | 107 | Ball | 230 | 24 | UL/CUL/CE | 48 | Terminals | 14.95 | 13.49 | 10.95 | 9.95 |
| 2125931 | Common Wealth | FP108-1 | 120 | 120 x 120 x 38 | 112 | Ball | 250 | 19 | UL/CUL/TUV/CE | 45 | Terminals | 10.95 | 9.95 | 8.95 | 7.95 |
| 102884 | Sunon | SP100A-1123XBT | 120 | 120 x 120 x 38 | 117 | Ball | 240 | 20 | UL/CUL/TUV/CE | 50 | Terminals | 17.95 | 15.95 | 14.49 | 12.95 |
| 189684 | Fulltech | UF15PC11BTH | 120 | 172 x 150 x 51 | 226 | Ball | 250 | 30 | CSA | 58 | Terminals | 36.95 | 34.95 | 32.95 | 29.95 |
| 212582 | Fulltech | UF15PC11BWH | 120 | 172 x 150 x 51 | 226 | Ball | 250 | 30 | UL/CUL/TUV/CE | 58 | 12" leads | 36.95 | 34.95 | 32.95 | 29.95 |
| 1950956 | Arctic | KEST-481BW | 120 | 172 x 150 x 51 | 260 | Ball | 620 | 46 | UL/CE/TUV | 61 | 12" leads | 38.95 | 36.95 | 34.49 | 31.95 |
| 100918 | Sunon | SF23080A/2083HSL | 220 | 80 x 80 x 38 | 30 | Sleeve | 60 | 13.5 | UL/CSA/TUV/CE | 35 | 12" leads | 15.95 | 13.95 | 12.49 | 10.95 |
| 355630 | Fulltech | UF-80A23-BTH-R | 220 | 80 x 80 x 38 | 30 | Ball | 60 | 12 | UL/CSA/VDE/CE | 36 | Terminals | 16.95 | 14.95 | 13.49 | 11.95 |
| 209365 | Bi-Sonic | 4C-230LB | 220 | 120 x 120 x 38 | 63 | Ball | 60 | 9 | TUV/CE | 34 | 10" leads | 8.95 | 7.95 | 7.49 | 6.95 |
| 2133801 | Adda | AA1282DB-AT | 220 | 120 x 120 x 38 | 74.7 | Ball | 60 | 8.0 | UL/CUL/TUV/CE | 39.2 | Terminals | 9.95 | 8.95 | 7.95 | 6.95 |
| 1918761 | Jamicon | KA1238H2B12 | 220 | 120 x 120 x 38 | 110 | Ball | 200 | 24 | UL/CUL/TUV/CE | 45 | Terminals | 10.95 | 9.49 | 8.95 | 7.95 |
| 2188676 | Comair Rotron | GAA1238-230BB | 220 | 120 x 120 x 38 | 111 | Dual Ball | 200 | 10 | UL/CUL/TUV/CE | 44 | Terminals | 13.95 | 12.95 | 11.95 | 10.49 |
| 303459 | Sunon | DP200A-2123XBL | 220 | 120 x 120 x 38 | 117 | Ball | 120 | 21 | UL/CSA/TUV/CE | 50 | 12" leads | 15.95 | 14.95 | 13.95 | 12.95 |
| 102892 | Sunon | DP200A-2123XBT | 220 | 120 x 120 x 38 | 117 | Ball | 120 | 21 | UL/CSA/TUV/CE | 50 | Terminals | 17.95 | 15.95 | 14.49 | 12.95 |
| 2151072 | Sunon | SF1212ADBL.GN* | 115/220 | 120 x 120 x 38 | 95/115 | Ball | 270 | 21.5 | UL/CUL/CE | 47 | 12" leads | 12.95 | 11.95 | 10.49 | 8.95 |
| 2145043 | Adda | AX17512HB-C(AT) | 220 | 172 x 150 x 51 | 240 | Ball | 160 | 34.5 | UL/TUV/CE | 56 | Terminals | 36.95 | 32.95 | 29.95 | 26.95 |

*4 wire leads, dual voltage For case mounting screws, P/Ns 2188481 or 2188490, see Web

## Fan Guards

★Web Code: UAR

- Guards and filters fit all fans. Please match by size dimension.
  Example: P/N 300557 fan (80mm) matches P/N 31924 metal guard (80mm).

Fig. 1 Fig. 2  Fig. 3 

| Part No. | mm | Description | Fig. | 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|
| 123502 | 40 | Metal (chrome) guard | 1 | $.59 | $.55 | $.49 | $.45 |
| 120038 | 60 | Metal (chrome) guard | 1 | .65 | .59 | .55 | .49 |
| 687666 | 60 | Metal (black anodized) guard | 2 | .85 | .79 | .75 | .69 |
| 31924 | 80 | Metal (chrome) guard | 1 | .69 | .65 | .59 | .55 |
| 1928433 | 80 | Metal (black anodized) guard | 2 | .79 | .69 | .65 | .59 |
| 123511 | 92 | Metal (chrome) guard | 1 | .75 | .69 | .65 | .59 |

| Part No. | mm | Description | Fig. | 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|
| 1952679 | 120 | Plastic guard only | 3 | $.89 | $.79 | $.69 | $.65 |
| 1952687 | 150 | Plastic guard only | 3 | .79 | .69 | .59 | .55 |
| 1952695 | 40 | Plastic guard w/ mesh | 4 | 1.19 | 1.09 | .99 | .89 |
| 1952708 | 60 | Plastic guard w/ mesh | 5 | 1.65 | 1.49 | 1.39 | 1.29 |
| 2158135 | 80 | Plastic guard w/ mesh | 4 | 1.49 | 1.35 | 1.19 | 1.09 |
| 138562 | 80 | Plastic guard w/ mesh (clip) | 5 | 1.79 | 1.69 | 1.59 | 1.45 |
| 229665 | 92 | Plastic guard w/ mesh | 4 | 1.75 | 1.65 | 1.39 | 1.25 |

Fig. 4

Fig. 5

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## 7400 Series

★Web Code: XAG

| Part No. | Mfr. | Product No. | Pkg. | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 48979 | ✦ | 7400N | DIP-14 | Quad 2-input pos. NAND gate | $1.35 | $1.09 | $.85 |
| 910901 | TI | SN7400N℞ | DIP-14 | Quad 2-input pos. NAND gate | 1.45 | 1.19 | .95 |
| 49015 | ✦ | 7402N | DIP-14 | Quad 2-input pos. NOR gate | 1.95 | 1.69 | 1.39 |
| 49040 | ✦ | 7404N | DIP-14 | Hex inverter | 1.59 | 1.35 | 1.19 |
| 49074 | ✦ | 7405N | DIP-14 | Hex inverter (O.C.) | 1.29 | 1.15 | .95 |
| 49091 | ✦ | 7406N | DIP-14 | Hex inverter buffer/driver | .79 | .69 | .55 |
| 49120 | ✦ | 7407N | DIP-14 | Hex buffer/driver | .75 | .65 | .55 |
| 49146 | ✦ | 7408N | DIP-14 | Quad 2-input pos. AND gate | 2.49 | 2.25 | 1.95 |
| 49189 | ✦ | 7410N | DIP-14 | Triple 3-input pos. NAND gate | 1.49 | 1.35 | 1.19 |

## 74LS Series

★Web Code: NBS

| Part No. | Mfr. | Product No. | Pkg. | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 46252 | ✦ | 74LS00N | DIP-14 | Quad 2-input pos. NAND gate | $.45 | $.39 | $.35 |
| 46316 | ✦ | 74LS04N | DIP-14 | Hex inverter | .49 | .39 | .35 |
| 46375 | ✦ | 74LS08N | DIP-14 | Quad 2-input pos. AND gate | .45 | .39 | .35 |
| 47466 | ✦ | 74LS32N | DIP-14 | Quad 2-input pos. OR gate | .45 | .35 | .29 |
| 47790 | ✦ | 74LS47N | DIP-16 | BCD-to-7 seg. decoder/driver | 1.49 | 1.29 | 1.09 |
| 295582 | TI | SN74LS47N | DIP-16 | BCD-to-7 seg. decoder/driver | 1.55 | 1.35 | 1.15 |
| 47811 | ✦ | 74LS48N | DIP-16 | BCD-to-7 seg. decoder/driver | 3.95 | 3.49 | 2.95 |
| 47992 | ✦ | 74LS73N | DIP-14 | Dual J-K neg-edge-triggered flip-flop | 1.69 | 1.49 | 1.25 |
| 48004 | ✦ | 74LS74N | DIP-14 | Dual D-type flip-flop | .45 | .39 | .29 |
| 48039 | ✦ | 74LS76N | DIP-16 | Dual J-K pos-edge-triggered flip-flop | 1.49 | 1.35 | 1.19 |
| 48063 | ✦ | 74LS83N | DIP-16 | 4-bit binary full adder | 2.19 | 1.99 | 1.79 |
| 48119 | ✦ | 74LS90N | DIP-14 | Asynchronous decade counter | 1.95 | 1.75 | 1.49 |
| 48151 | ✦ | 74LS93N | DIP-14 | 4-bit binary counter | 1.29 | 1.09 | .95 |
| 46703 | ✦ | 74LS151N | DIP-16 | 1-to-8 data selector/multiplexer | .75 | .65 | .55 |
| 47010 | ✦ | 74LS192N | DIP-16 | Synch. 4-bit up/down decade counter | 3.49 | 3.25 | 2.95 |

## EPROMs

★Web Code: XAF

| Part No. | Mfr. | Product No. | Pkg.† | Config. | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|
| 203641 | ✦ | 27C1024-12 | DIP-40 | 64k x 16 | 120ns, 5V | $3.95 | $3.25 | $2.75 |
| 39651 | ✦ | 27C010-15✣ | DIP-32 | 128k x 8 | 150ns, 5V | 3.49 | 3.25 | 2.95 |
| 697987 | ST | M27C1001-15F1℞ | FDIP-32 | 128k x 8 | 150ns, 5V | 4.95 | 4.75 | 4.49 |
| 74624 | ✦ | 27C010-12✣ | DIP-32 | 128k x 8 | 120ns, 5V | 3.49 | 3.25 | 2.95 |
| 697961 | ST | M27C1001-12F1℞ | FDIP-32 | 128k x 8 | 120ns, 5V | 6.95 | 6.25 | 5.59 |
| 697944 | ST | M27C1001-10F1℞ | FDIP-32 | 128k x 8 | 100ns, 5V | 4.75 | 4.49 | 4.25 |
| 146149 | ✦ | 27C010-70✣ | DIP-32 | 128k x 8 | 70ns, 5V | 4.25 | 3.95 | 3.75 |
| 698007 | ST | M27C1001-70F1℞ | FDIP-32 | 128k x 8 | 70ns, 5V | 4.75 | 4.49 | 4.25 |
| 65699 | ✦ | 27C020-15✣ | DIP-32 | 256k x 8 | 150ns, 5V | 3.75 | 3.49 | 3.25 |
| 78852 | ✦ | 27C020-12✣ | DIP-32 | 256k x 8 | 120ns, 5V | 3.95 | 3.75 | 3.49 |
| 698031 | ST | M27C2001-12F1℞ | FDIP-32 | 256k x 8 | 120ns, 5V | 5.95 | 5.49 | 4.95 |
| 156267 | ✦ | 27C020-10 | DIP-32 | 256k x 8 | 100ns, 5V | 4.25 | 3.95 | 3.75 |
| 127933 | ✦ | 27C4096-12 | DIP-40 | 256k x 16 | 120ns, 5V | 5.49 | 4.95 | 4.49 |
| 85462 | ✦ | 27C040-15✣ | DIP-32 | 512k x 8 | 150ns, 5V | 4.49 | 4.25 | 3.95 |
| 102293 | ✦ | 27C040-12✣ | DIP-32 | 512k x 8 | 120ns, 5V | 4.95 | 4.75 | 4.49 |
| 266124 | ✦ | 27C040-70 | DIP-32 | 512k x 8 | 70ns, 5V | 4.95 | 4.75 | 4.49 |
| 156275 | ✦ | 27C080-10 | DIP-32 | 1M x 8 | 100ns, 5V | 8.95 | 7.95 | 7.25 |
| 203684 | ✦ | 27C080-90 | DIP-32 | 1M x 8 | 90ns, 5V | 8.95 | 7.95 | 7.25 |

✣ Refurbished = Backed by Jameco  †FDIP = Ceramic frit seal

## Static RAM

| Part No. | Mfr. | Product No. | Pkg. | Config. | Description | 1 | 10 |
|---|---|---|---|---|---|---|---|
| 38931 | ✦ | 2111-1 | DIP-18 | 256 x 4 | 1-Kbit, 5V, 500ns | $2.25 | $1.95 |
| 42198 | ✦ | 5101★ | DIP-22 | 256 x 4 | 1-Kbit, 5V, 450ns | 7.95 | 6.95 |
| 38957 | ✦ | 2114N | DIP-18 | 1k x 4 | 4-Kbit, 5V, 450ns | 2.25 | 1.95 |
| 43238 | ✦ | 6514 | DIP-18 | 1k x 4 | 4-Kbit, 5V, 300ns | 2.95 | 2.75 |
| 38973 | ✦ | 2114N-2 | DIP-18 | 1k x 4 | 4-Kbit, 5V, 200ns | 2.49 | 2.25 |
| 38981 | ✦ | 2114N-2L | DIP-18 | 1k x 4 | 4-Kbit, 5V, 450ns, LP | 2.69 | 2.39 |
| 38746 | ✦ | 2016-20★ | DIP-24 | 2k x 8 | 16-Kbit, 5V, 200ns | 1.15 | 1.05 |
| 114260 | DAL | DS1220Y-150 | DIP-24 | 2k x 8 | 16-Kbit, 5V, 150ns, NV | 12.95 | 10.95 |
| 25911 | ✦ | MK48Z02B-15 | DIP-24 | 2k x 8 | 16-Kbit, 5V, 150ns, NV | 7.95 | 6.95 |

★ Pull = Extra Savings

## Microcontrollers

★Web Code: PAV

| Part No. | Mfr. | Mfr. Part No. | Pkg. | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 168874 | ATM | AT89C2051-24PU℞ | DIP-20 | 2k flash, 24MHz, 15 I/O | $1.39 | $1.15 | $.95 |
| 204089 | ATM | AT89C4051-24PU℞ | DIP-20 | 4k flash, 24MHz, 15 I/O | 2.45 | 2.15 | 1.75 |
| 1537061 | ATM | ATTINY2313-20PU℞ | DIP-20 | 2k flash, 20MHz, 18 I/O | 2.75 | 2.25 | 2.15 |
| 323141 | ATM | ATMEGA8515-16PC | DIP-40 | 8k flash, 16MHz, 35 I/O | 3.75 | 3.25 | 3.09 |
| 168903 | ATM | AT89C51-24PC | DIP-40 | 4k flash, 24MHz, 32 I/O | 2.49 | 2.25 | 1.95 |
| 220871 | ATM | AT89S52-24JI | PLCC-44 | 8k flash, 24MHz, 32 I/O | 1.35 | 1.15 | .85 |
| 662637 | ATM | AT89S52-24PC℞ | DIP-40 | 8k flash, 24MHz, 32 I/O | 1.49 | 1.25 | .95 |
| 168946 | ATM | AT89C55WD-24PC | DIP-40 | 20k flash, 24MHz, 32 I/O | 3.95 | 3.49 | 2.95 |
| 2139111 | ATM | ATMEGA328P-PU℞ | DIP-28 | 32k flash, 8-bit, 20MHz | 4.95 | 4.49 | 4.09 |
| 2129334 | ATM | A000048 | DIP-28 | 32k flash, 8-bit, ATmega328 | 4.95 | 4.65 | 4.49 |
| 114403 | DAL | DS80C320-MCG | DIP-40 | High speed LP micro | 9.95 | 7.95 | 5.95 |

## Linear Series

★Web Code: FAD

| Part No. | Mfr. | Product No. | Pkg./Pins | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 700664 | TI | ULN2803AN℞ | DIP-18 | Darlington transistor array, I-temp | $.79 | $.65 | $.55 |
| 123625 | NSC | LM2907N-8 | DIP-8 | Frequency to volt converter | 1.59 | 1.39 | 1.15 |
| 23317 | NSC | LM2907N | DIP-14 | Frequency to volt converter | 1.75 | 1.49 | 1.35 |
| 23350 | NSC | LM2917N-8 | DIP-8 | Freq. to volt conv. w/ zener | 1.75 | 1.59 | 1.35 |
| 23341 | NSC | LM2917N-14 | DIP-14 | Freq. to volt conv. w/ zener | 1.75 | 1.49 | 1.19 |
| 12079 | ✦ | CA3046N | DIP-14 | NPN transistor array | 1.49 | 1.39 | 1.25 |
| 12159 | ✦ | CA3086N | DIP-14 | NPN transistor array | 1.95 | 1.75 | 1.49 |
| 31974 | ✦ | SG3524N | DIP-16 | Regulating pulse width modulator | .79 | .69 | .59 |
| 51140 | ✦ | 7555IPA | DIP-8 | CMOS timer | .45 | .39 | .35 |
| 51174 | ✦ | 7660CPA | DIP-8 | CMOS volt converter (+5 to ±5V) | .75 | .65 | .55 |
| 53786 | FSC | 9602PC | DIP-16 | Dual retrig. resett. monostable multivib. | .49 | .45 | .39 |
| 25021 | ON | MC14411P | DIP-24 | Bit rate frequency generator | 5.95 | 4.95 | 3.95 |
| 118586 | ON | MC145151P | DIP-28 | Parallel input PLL freq synthesizer | 4.95 | 3.95 | 2.95 |
| 1054684 | TI | SN754410NE℞ | DIP-16 | Quad half-H drivers | 1.95 | 1.75 | 1.55 |

## Transistors

★Web Code: FEN

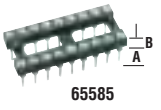
✳ Order in multiples of 10

| Part No. | Mfr. | Product No. | Pkg. | Desc. | $V_{CEO}$ | Min. ($h_{FE}$ @ Ic) | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| 26462 | ✦ | MPSA06 | TO-92 | NPN | 80 | 100k @ .01A | ✳ | $.12 | $.10 |
| 26489 | ✦ | MPSA13* | TO-92 | NPN | 30 | 5k @ .01A | ✳ | .12 | .10 |
| 210593 | ✦ | MPSA14 | TO-92 | NPN | 30 | 20k @ .10A | ✳ | .19 | .15 |
| 210681 | ✦ | MPSA18* | TO-92 | NPN | 45 | 500 @ .001A | ✳ | .15 | .12 |
| 33021 | ✦ | TIP29A | TO-220 | NPN | 60 | 15 @ 1A | .39 | .35 | .25 |
| 33048 | ✦ | TIP31A* | TO-220 | NPN | 60 | 10 @ 3A | .39 | .35 | .25 |
| 179354 | FSC | TIP31C | TO-220 | NPN | 100 | 10 @ 3A | .39 | .35 | .25 |
| 890568 | ST | TIP35C℞ | TO-247 | NPN | 100 | 25 @ 1.5A | 1.49 | 1.25 | 1.09 |
| 33081 | ✦ | TIP41A | TO-220 | NPN | 60 | 15 @ 3A | .49 | .39 | .29 |
| 33101 | ✦ | TIP42A | TO-220 | PNP | 60 | 15 @ 3A | .69 | .59 | .45 |
| 139580 | ✦ | TIP42C | TO-220 | PNP | 100 | 15 @ 3A | .49 | .39 | .29 |
| 179258 | ✦ | TIP107 | TO-220 | PNP | 100 | 1k @ 3A | .59 | .49 | .35 |

## Machine Tooled Solder Tail Low-Profile IC Sockets

- Contact plating: gold • Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300$V_{RMS}$
- Insulation resistance: greater than 1000MΩ
- Material: beryllium copper or phosphor bronze
- Tin-plated leads
- Thru-hole lead length: .177" (A) • Body height: .117" (B)

JAMECO ValuePro



65585

★Web Code: GBA

| Part No. | Cross Ref. No. | Pins | Width (in.) | 1 | 10 | 100 |
|---|---|---|---|---|---|---|
| 167004 | 6MLP℞ | 6 | 0.3 | $.39 | $.29 | $.19 |
| 51626 | 8MLP℞ | 8 | 0.3 | .49 | .45 | .29 |
| 37197 | 14MLP℞ | 14 | 0.3 | .65 | .55 | .39 |
| 37402 | 16MLP℞ | 16 | 0.3 | .75 | .59 | .45 |
| 65585 | 18MLP℞ | 18 | 0.3 | .89 | .75 | .55 |
| 38623 | 20MLP | 20 | 0.3 | .85 | .69 | .49 |

* ATM = Atmel Semi | DAL = Dallas Semiconductor | FSC = Fairchild | NSC = National Semi | ON = ON Semi | ST = ST Micro | TI = Texas Instruments | ✦ Major Brands

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

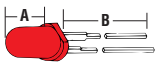
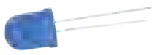


Fig. 1

Fig. 2

2152104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2174881

2095189

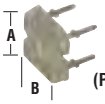


Fig. 3 (Piranha)

## Standard-Output LEDs

★LED Mounting Hardware — Enter Web Code KAL

★Web Code: FAF

✳ Order in multiples of 10

| Part No. | Product No. | •Mfr. | Fig. | Emitting Color | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions A" | Dimensions B" | Lead Spacing | Typical Vf | Typical mcd | Wavelength (nm) | Viewing Angle° | Pricing 1 | Pricing 10 | Pricing 100 | Pricing 1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 114673 | LH2043R | JVP | 1 | Red | Water clear (BR209) | T1 | 0.119/3 | 0.14 | 0.98 | 0.07 | 2.3 | 8 | 697 | 30 | ✳ | $.12 | $.10 | $.08 |
| 206498 | LHR2041R | JVP | 1 | Red | Red transparent | T1 | 0.119/3 | 0.17 | 0.69 | 0.08 | 2.4 | 350 | 660 | 30 | ✳ | .12 | .10 | .08 |
| 697590 | LTL-4221NR | LTO | 1 | Hi-eff Red | Red diffused | T1 | 0.118/3 | 0.175 | 1.00 | 0.10 | 2.0 | 8.7 | 635 | 60 | ✳ | .069 | .055 | .045 |
| 333383 | UT63B1-41-M1A2R | JVP | 2 | Blue | Blue diffused | T1 | 0.119/3 | 0.17 | 0.98 | 0.10 | 3.8 | 50 | 466 | 54 | .59 | .49 | .39 | .29 |
| 333973 | UT1871-81-M1R | JVP | 1 | Red | Red diffused | T1 ¾ | 0.197/5 | 0.34 | 0.98 | 0.10 | 1.7 | 75 | 660 | 25 | ✳ | .12 | .10 | .08 |
| 2125309 | LS5469FH | SIE | 1 | Super Red | Red diffused | T1 ¾ | 0.20/5.1 | 0.31 | 1.10 | 0.10 | 1.8 | 5 | 635 | 50 | ✳ | .07 | .05 | .03 |
| 302033 | LT1814-81 | JVP | 1 | Red | Red clear | T1 ¾ | 0.197/5 | 0.34 | 0.88 | 0.10 | 2.1 | 10 | 650 | 10 | ✳ | .08 | .06 | .04 |
| 2152112 | MCDL-833SEDR | JVP | 2 | Hi-eff red | Red diffused | 10mm | 0.394/10 | 0.43 | 1.00 | 0.1 | 2.0 | 35 | 635 | 60 | .59 | .55 | .49 | .39 |
| 2152139 | MCDL-833ED-E-610R | JVP | 2 | Orange | Orange diffused | 10mm | 0.394/10 | 0.43 | 1.00 | 0.1 | 2.0 | 25 | 610 | 60 | .45 | .39 | .35 | .29 |
| 2152121 | MCDL-833SYDR | JVP | 2 | Yellow | Yellow diffused | 10mm | 0.394/10 | 0.43 | 1.00 | 0.1 | 2.0 | 35 | 590 | 60 | .59 | .55 | .49 | .39 |
| 2152104 | MCDL-833SGDR | JVP | 2 | Green | Green diffused | 10mm | 0.394/10 | 0.43 | 1.00 | 0.1 | 2.2 | 50 | 570 | 60 | .59 | .55 | .49 | .39 |
| 2152147 | MCDL-833SBDR | JVP | 2 | Blue | Blue diffused | 10mm | 0.394/10 | 0.43 | 1.00 | 0.1 | 4.2 | 20 | 430 | 60 | 1.49 | 1.35 | 1.19 | .99 |

## High-Output LEDs

• Typical DC forward current 20mA

★Web Code: RBJ

✳ Order in multiples of 10

| Part No. | Product No. | •Mfr. | Fig. | Emitting Color | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions A" | Dimensions B" | Lead Spacing | Typical Vf | Typical mcd | Wavelength (nm) | Viewing Angle° | Pricing 1 | Pricing 10 | Pricing 100 | Pricing 1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 98950 | QLMP-LM98 | AVT | 2 | Green | Green clear (oval) | T1 | 0.119/3 | 0.28 | 0.94 | 0.10 | 3.2 | 2400 | 525 | 70 | ✳ | $.19 | $.15 | $.12 |
| 2168421 | 3MMLED-BLUE | JVP | 1 | Blue | Blue diffused | T1 | 0.119/3 | 0.15 | 0.69 | 0.10 | 3.4 | 5000 | 465 | 120 | ✳ | .19 | .15 | .12 |
| 2169846 | 3MMLED-GREEN | JVP | 1 | Green | Green diffused | T1 | 0.119/3 | 0.15 | 0.69 | 0.10 | 3.4 | 5000 | 520 | 120 | ✳ | .19 | .15 | .12 |
| 2174881 | 3MMLED-WHITE | JVP | 1 | White | White diffused | T1 | 0.119/3 | 0.15 | 0.69 | 0.10 | 3.4 | 8000 | — | 120 | ✳ | .19 | .15 | .12 |
| 2095189 | RL50-PY543 | JVP | 2 | Ultra Yellow | Water clear | T1 ¾ | 0.197/5 | 0.30 | 1.02 | 0.10 | 1.7 | 8000 | 595 | 20 | .39 | .29 | .19 | .15 |
| 2006772 | LTL-2H3VYKNT1R | LTO | 1 | Amber/Yellow | Water clear, flanged | T1 ¾ | 0.197/5 | 0.30 | 0.87 | 0.10 | 2.0 | 3400 | 595 | 15 | ✳ | .12 | .10 | .07 |
| 2167251 | MCDL-5013BGC-TLR | JVP | 2 | Green/Blue | Water clear | T1 ¾ | 0.197/5 | 0.30 | 0.96 | 0.10 | 3.2 | 11000 | 510 | 30 | .99 | .89 | .79 | .65 |
| 334473 | LDGL3333/H0R | JVP | 1 | Green | Water clear | T1 ¾ | 0.197/5 | 0.30 | 0.98 | 0.10 | 3.5 | 3400 | 505 | 22 | .75 | .65 | .55 | .45 |
| 2160067 | MVL-514SW-T | UNI | 2 | White | Water clear | T1 ¾ | 0.197/5 | 0.30 | 1.04 | 0.10 | 3.2 | 7000 | — | 30 | 1.09 | 1.39 | .99 | 1.25 |
| 183222 | MCDL-5013UBC-TLR | JVP | 1 | Blue | Water clear | T1 ¾ | 0.197/5 | 0.30 | 0.94 | 0.10 | 3.5 | 6000 | 470 | 18 | 1.39 | 1.25 | 1.09 | .99 |
| 334502 | LWK3333R | JVP | 1 | White | Water clear | T1 ¾ | 0.197/5 | 0.30 | 0.94 | 0.10 | 3.5 | 5000 | — | 16 | .89 | .79 | .65 | .59 |
| 2115493 | UT5HW3-4D-URC3-4861-RR | JVP | 1 | White | Water clear | T1 ¾ | 0.197/5 | 0.30 | 0.95 | 0.10 | 4.0 | 7000 | — | 30 | 1.19 | 1.09 | .95 | .79 |
| 2144753 | TLWB7600 | VSH | 3 | Blue | Water clear (7.62mm sq.) | 2mm dome | 0.079/2 | 0.30 | 0.30 | 0.20 | 4.3 | 2000 | 470 | 30 | .29 | .25 | .19 | .15 |
| 2005702 | LTL912VEKSAR | LTO | 3 | Red | Water clear (7.62mm sq.) | 3mm dome | 0.119/3 | 0.30 | 0.30 | 0.20 | 2.15 | 1200 | 632 | 50 | ✳ | .10 | .08 | .06 |
| 404603 | MCDL-1860UGC-TLR | JVP | 3 | Green | Water clear (7.62mm sq.) | 3mm dome | 0.119/3 | 0.30 | 0.30 | 0.20 | 3.5 | 3500 | 525 | 75 | .59 | .49 | .39 | .29 |

## LED Displays

★LED Dot Matrix Displays — Enter Web Code HAV

- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W

24782

2082265

320469

2188895

32951

### Single Digit 7-Segment Numeric LED Displays

★Web Code: PBW

| Part No. | Manufacturer | Product No. | Character Height | Illuminated Color | Bus Polarity* | Pins/ Leads | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength (nm) | Decimal Point # | Pricing 1 | Pricing 10 | Pricing 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24732 | MCD | GNS-3011BH-11R | 0.30" | Red | CA | 10 | 1.9 @ 20 | 0.3 @ 20 | 697 | LHDP/RHDP | $.89 | $.79 | $.69 |
| 24782 | Ligitek | LSD3211-11R | 0.30" | Red | CC | 10 | 2.1 @ 20 | 2.5 @ 20 | 697 | LHDP/RHDP | .99 | .89 | .75 |
| 24740 | Ligitek | LSD3221-11R | 0.30" | Red | CA | 11 | 2.1 @ 20 | 2.5 @ 20 | 697 | LHDP/RHDP | .99 | .89 | .75 |
| 2129713 | Ligitek | LSD3H66F-20AR | 0.30" | AlGaInP Red | CA | 10 | 1.7 @ 30 | 31 @ 30 | 630 | RHDP | .49 | .45 | .39 |
| 2082265 | General Instr. | MAN3620A | 0.30" | Orange | CA | 11 | 2.5 @ 20 | 3.3 @ 10 | 630 | LHDP | .39 | .29 | .25 |
| 335011 | ValuePro | UA3041-12R | 0.30" | Orange | CA | 11 | 2.1 @ 20 | 3.3 @ 10 | 635 | RHDP | .49 | .39 | .35 |
| 320469 | ValuePro | UA3031-16-EWRNR | 0.30" | Yellow | CA | 11 | 3.0 @ 20 | 2.3 @ 10 | 585 | LHDP/RHDP | .75 | .69 | .55 |
| 2188895 | Hewlett Packard | HDSP-7301 | 0.30" | Red | CA | 10 | 1.6 @ 25 | 11 @ 20 | 640 | RHDP | 1.49 | 1.25 | .99 |

### LED Dot Matrix with Decoder Driver (4 x 7 Hexadecimal Array)

★Web Code: HAV

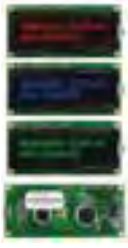
| Part No. | Manufacturer | Mfr. Part No. | Character Height | Illuminated Color | Supply Voltage (V) | No. of Characters | Array Polarity | Pins/ Leads | Typical mcd | Wavelength (nm) | Pricing 1 | Pricing 10 | Pricing 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32951 | Texas Instruments | TIL311 | 0.27" | Red | 5 | 1 | 4 x 7 Hex | 11 | 0.1 | 660 | $19.95 | $17.95 | $15.95 |

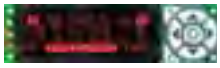
• AVT = Avago | JVP = Jameco ValuePro | LTO = Lite-On | SIE = Siemens | UNI = Unity Opto Technology | VSH = Vishay

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

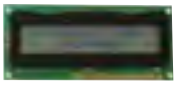
# Serial & Parallel LCD Displays

3 LEVELS OF SAVINGS: NAME BRANDS | HOUSE BRANDS | SPECIAL BUY





2118651 | 2135638 | 158166 | 2118686 | 150957 | 2152948



2118555 | 618003 | 2154927 | 2118619 | 210761 | 2115469 | 2118635

## Serial LCD Displays

• One-year warranty

★ Organic LED Displays — Enter Web Code: OSD

★ Thin-Film Transistor Displays — Enter Web Code: TFT

★ Web Code: QAW

| Part No. | Manufacturer | Mfr. Part No. | Characters x Lines | Input Data | Input Voltage (V @ mA) | Letters - Backlight | Notes† | Module Size (W" x H" x D") | Display Size (W" x H") | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2189020 | Newhaven℞ | NHD-C0216CZ-FSW-FBW-3V3 | 16 x 2 | — | 2.7-4.5 @ 30 | Black-White | 8 | 1.6 x 1.0 x 0.2 | 1.6 x 0.6 | $9.95 | $8.95 |
| 2188967 | Newhaven℞ | NHD-0216K3Z-NSW-BBW-V3 | 16 x 2 | 300-115200 | 4.7-5.5 @ 34 | White-Blue | — | 3.1 x 1.4 x 0.5 | 2.8 x 1.0 | 16.95 | 15.95 |
| 2118651 | Newhaven℞ | NHD-0216K3Z-FL-GBW | 16 x 2 | 9600 (default) | 5.0 @ 125 | Blue-Yellow/Green | — | 3.2 x 1.4 x 0.5 | 2.5 x 0.6 | 18.95 | 16.95 |
| 2135638 | ValuePro | LK162-12-WB | 16 x 2 | 1200-19200 | 5.0 @ 9 | White-Blue | 1,3,4,6 | 3.2 x 1.5 x 0.8 | 2.5 x 0.7 | 19.95 | 17.95 |
| 2118660 | Newhaven℞ | NHD-0126K3Z-FS(RGB)-FBW | 16 x 2 | 9600 (default) | 5.0 @ 18 | Black-RGB | — | 3.2 x 1.4 x 0.5 | 2.5 x 0.6 | 23.95 | 21.49 |
| 2154927 | Newhaven℞ | NHD-0216K3Z-NS(RGB)-FBWV3 | 16 x 2 | 300-115200 | 4.7-5.5 @ 33 | RGB-Black | — | 3.1 x 1.4 x 0.5 | 2.5 x 0.6 | 23.95 | 21.49 |
| 2189038 | Newhaven℞ | NHD-C0220AA-FSW-FTW (3V) | 20 x 2 | — | 3.2-3.4 @ 40 | Black-White | 8 | 2.8 x 1.0 x 0.2 | 2.7 x 0.7 | 10.95 | 9.95 |
| 2189011 | Newhaven℞ | NHD-C0220BIZ-FSW-FBW-3V3M | 20 x 2 | — | 2.7-3.5 @ 30 | Black-White | 8 | 2.8 x 1.1 x 0.3 | 2.4 x 0.6 | 10.95 | 10.49 |
| 2118539 | Newhaven℞ | C0220BIZ-FS(RGB)-FBW-3VM | 20 x 2 | 9600 (default) | 2.7-3.5 @ 1 | Black-Red/Green/Blue | — | 3.0 x 1.1 x 0.3 | 2.4 x 0.6 | 12.95 | 11.49 |
| 2188975 | Newhaven℞ | NHD-0220D3Z-NSW-BBW-V3 | 20 x 2 | 300-115200 | 4.7-5.5 @ 35 | White-Blue | — | 4.6 x 1.5 x 0.5 | 3.6 x 1.2 | 19.95 | 18.95 |
| 158166 | Scott Edwards | SGX-120L | 20 x 4 w/ graphics | 2400 or 9600 | 4.8-5.5 @ 15 | Yellow-None | 1,2,5 | 3.1 x 1.9 x 0.8 | 2.6 x 1.1 | 68.95 | 61.95 |
| 2188983 | Newhaven℞ | NHD-0420D3Z-NSW-BBW-V3 | 20 x 4 | 300-115200 | 4.7-5.5 @ 35 | White-Blue | — | 3.9 x 2.4 x 0.5 | 3.4 x 1.6 | 20.95 | 19.95 |
| 2118686 | Newhaven℞ | NHD-0420D3Z-FL-GBW | 20 x 4 | 9600 (default) | 5.0 @ 245 | Blue-Yellow/Green | 1 | 3.9 x 2.4 x 0.5 | 3.0 x 1.0 | 23.95 | 21.49 |
| 150957 | Matrix Orbital | LCD2041 | 20 x 4 | 1200-19,200 | 5.0 @ 10 | Black-Yellow/Green | 1,3,4,6 | 3.9 x 2.4 x 0.7 | 3.0 x 1.0 | 64.95 | 62.95 |
| 2152948 | Matrix Orbital℞ | LK204-7T-1U-TCI | 20 x 4 w/ keypad | 9600-12582912 | 4.8-5.3 @ 200 | Black-Tri-color | 7,8 | 5.5 x 1.5 x 1.1 | 3.2 x 1.1 | 64.95 | 62.95 |
| 2118555 | Newhaven℞ | NHD-C12832A1Z-FSW-FBW-3V3 | 128 x 32 pixels | — | 2.7-3.3 @ 30 | Black-White | 8 | 1.6 x 1.0 x 0.2 | 1.6 x 0.6 | 9.95 | 8.95 |

†**1.** For a power supply, Jameco recommends P/N 164101 (see Web)
**2.** Includes instruction codes for character generation, cursor control, printing, etc. (Examples for Stamps in PBASIC included)
**3.** Manual included
**4.** Connect 16 modules using the same two wire interface
**5.** EEPROM stores text font, settings, and text screen
**6.** Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping & auto scroll feature
**7.** Fits into a 1U opening
**8.** COG (Chip-on-Glass) LCD module

## Parallel LCD Displays

★ Web Code: GCG

| Part No. | Mfr. | Mfr. Part No. | Characters x Lines | Character Font | Input Data | Input Voltage (V @ mA) | Letters-Backlight | Notes† | Module Size (W" x H" x D") | Display Size (W" x H") | Pricing 1 | Pricing 5 | Pricing 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2167314 | Hantronix | HDM08216H-3-S005℞ | 8 x 2 | 5 x 7 | 8-bit | 5.0 @ 2.2 | Gray-STN-None | 5 | 2.3 x 1.3 x 0.4 | 1.5 x 0.6 | $4.49 | $3.95 | $3.49 |
| 2138791 | P-Tec | PC1601J-YLFYDLX | 16 x 1 | 5 x 8 | 8-bit | 5.0 @ 2.0 | Black-Yellow/Green | — | 4.8 x 1.7 x 0.3 | 3.9 x 0.9 | 4.95 | 4.49 | 3.95 |
| 618003 | Hantronix | HDM716216H-5-3005 | 16 x 2 | 5 x 7 | 8-bit | 5.0 @ 1.25 | Black-None | — | 3.2 x 1.4 x 0.3 | 2.5 x 0.5 | 9.95 | 8.95 | 7.95 |
| 1946068 | Tinsharp | C-1602A-1YN | 16 x 2 | 5 x 8 | 8-bit | 5.0 @ 1.0 | Black-None | — | 2.8 x 1.4 x 0.4 | 2.6 x 0.6 | 6.95 | 5.95 | 4.95 |
| 2167293 | Hantronix | HDM1621H-B-S905℞ | 16 x 2 | 5 x 7 | 8-bit | 5.0 @ 2.2 | Gray-STN-None | 5 | 3.3 x 1.7 x 0.4 | 2.4 x 0.6 | 3.95 | 3.49 | 2.95 |
| 2118619 | Newhaven | NHD-021682-FL-YBW℞ | 16 x 2 | 5 x 8 | 4-bit or 8-bit | 5.0 @ 1.5 | Blue-Yellow/Green | 2, 3 | 3.3 x 1.7 x 0.5 | 2.5 x 0.6 | 10.95 | 9.95 | 8.95 |
| 2118580 | Newhaven | NHD-02161Z-FL-YBW℞ | 16 x 2 | 5 x 8 | 4-bit or 8-bit | 5.0 @ 1.5 | Blue-Yellow/Green | 4, 4 | 3.2 x 1.4 x 0.5 | 2.5 x 0.6 | 9.95 | 8.95 | 7.95 |
| 2118598 | Newhaven | NHD-0216K1Z-NSW-BBW-L℞ | 16 x 2 | 5 x 8 | 4-bit or 8-bit | 5.0 @ 1.5 | White-Blue | 2, 3 | 3.2 x 1.4 x 0.5 | 2.5 x 0.6 | 10.95 | 9.95 | 8.95 |
| 1954674 | Tinsharp | TC1602B-W | 16 x 2 | 5 x 8 | 8-bit | 5.0 @ 1.3 | White-Blue | — | 3.1 x 1.4 x 0.4 | 2.5 x 0.4 | 9.95 | 8.95 | 8.49 |
| 2138783 | P-Tec | PC1602J-YLFYDLX | 16 x 2 | 5 x 8 | 8-bit | 5.0 @ 2.0 | Black-Yellow/Green | — | 4.8 x 1.7 x 0.3 | 3.9 x 0.9 | 4.95 | 4.49 | 3.95 |
| 2081166 | Optrex | DMC16249 | 16 x 2 | 5 x 8 | 4-bit or 8-bit | 5.0 @ 3.0 | Black-Grey -None | — | 3.1 x 1.4 x 0.4 | 2.5 x 0.5 | 5.95 | 4.95 | 4.49 |
| 2173159 | Vikay | 2035STLDYGTN | 16 x 2 | 5 x 8 | 4-bit or 8-bit | 5.0 @ 1.0 | Blue-Yellow/Green | — | 3.1 x 1.4 x 0.5 | 2.4 x 0.6 | 6.95 | 5.95 | 4.95 |
| 210761 | ValuePro | UC-16401 (Samsung) | 16 x 4 | 5 x 8 | 4-bit or 8-bit | 6.5 @ 2.2 | Black-None | 1, 5 | 3.4 x 2.4 x 0.3 | 2.4 x 1.0 | 8.95 | 7.95 | 6.95 |
| 2167488 | ValuePro | HC164001YFHLYB℞ | 16 x 4 | 5 x 7 | 8-bit | 5.0 @ 0.35 | Black-Yellow/Green | — | 3.2 x 2.3 x 0.5 | 2.4 x 1.0 | 8.95 | 7.95 | 6.95 |
| 2138775 | Hantronix | HDM20216H-3-S00F℞ | 20 x 2 | 5 x 7 | 8-bit | 5.0 @ 2.2 | Black-None | 6 | 4.5 x 1.5 x 0.4 | 3.3 x 0.7 | 4.95 | 3.95 | 2.95 |
| 2115469 | Hantronix | HDM20216H-3-VH0P | 20 x 2 | 5 x 7 | 8-bit | 5.0 @ 2.2 | Yellow-None | — | 4.6 x 1.5 x 0.4 | 3.3 x 0.7 | 5.95 | 4.95 | 3.95 |
| 2118635 | Newhaven | NHD-0220DZ-FL-YBW℞ | 20 x 2 | 5 x 8 | 4-bit or 8-bit | 5.0 @ 1.5 | Blue-Yellow/Green | 3, 4 | 4.6 x 1.5 x 0.4 | 3.3 x 0.7 | 16.95 | 14.95 | 13.49 |
| 2158207 | Tianma | TM204JAA7℞ | 20 x 4 | 5 x 8 | 8-bit | 5.0 @ 1.4 | Blue-Black/White | — | 3.0x 1.8 x 0.4 | 2.3 x 0.0 | 12.95 | 10.95 | 9.95 |
| 2118643 | Newhaven | NHD-0420DZ-FL-YBW℞ | 20 x 4 | 5 x 8 | 4-bit or 8-bit | 5.0 @ 3.5 | Blue-Yellow/Green | 2, 4 | 3.9 x 2.4 x 0.6 | 3.0 x 1.0 | 21.95 | 20.49 | 18.95 |

†**1.** Recommended power supply P/N 164101 (see Web)
**2.** Recommended power supply P/N 252701 (see Web)
**3.** Controller SPLC780D or equivalent
**4.** Controller SPLC780D-01 or equivalent
**5.** Control LSI HD44780 & column driver MSM5259 or equivalents
**6.** 14-pin connector installed

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Capacitors, Inductors/Chokes and Fuses

| Part No. | Product No. | Description | Wt. (lbs.) | 1 | 10 |
|---|---|---|---|---|---|
| 17857 | GB100 | 200 assorted ceramic disc capacitors | 0.2 | $6.95 | $5.95 |
| 135335 | GB100LB | 900 assorted ceramic disc capacitors | 1.0 | 16.95 | 14.95 |
| 17881 | GB101 | 100 assorted mylar capacitors | 0.3 | 7.95 | 6.95 |
| 135458 | GB101LB | 400 assorted mylar capacitors | 1.0 | 19.95 | 17.95 |
| 17911 | GB102 | 100 assorted electrolytic capacitors radial, axial, snap, 85˚C, 105˚C, ±20% | 0.5 | 9.95 | 8.95 |
| 135394 | GB102LB | 300 assorted electrolytic capacitors | 1.0 | 19.95 | 17.95 |
| 17945 | GB103 | 100 assorted tantalum capacitors (dipped epoxy and solid tubular) | 0.1 | 9.95 | 8.95 |
| 2081342 | GB200 | 100 assorted axial chokes & inductors | 2.0 | 9.95 | 8.95 |
| 2179243 | GB211 | 100 assorted fuses (5mm x 20, 1¼", 1/4") AGC/MDL, GMA/GMD, Various AMPs, 250V | 0.3 | 9.95 | 8.95 |

## Switches, Toy Motors, Gears and Fans

| Part No. | Product No. | Description | Wt. (lbs.) | 1 | 10 |
|---|---|---|---|---|---|
| 2133472 | GB206 | 50 assorted DIP switches (2-12 position, low profile, slide, rocker, R/A, standard) | 0.2 | $8.95 | $7.95 |
| 18235 | GB165 | 50 assorted switches (toggle, pushbutton, rocker, slide, DIP) | 0.4 | 9.95 | 8.95 |
| 135378 | GB165LB | 150 assorted #18235 switches | 2.0 | 22.95 | 19.95 |
| 18294 | GB182 | 5 assorted toy DC motors (1.5–24V) | 0.5 | 7.95 | 6.95 |
| 1810072 | GB210 | 10 pcs. gear set, plastic, black T10, 20, 30, 40, 50 with bushings | 0.2 | 7.95 | 6.95 |
| 2134310 | GB208 | 5 assorted 5VDC fans (sizes & cfm vary) | 3.5 | 7.95 | 6.95 |
| 2134328 | GB209 | 5 assorted 12VDC fans (sizes & cfm vary) | 3.5 | 10.95 | 9.95 |
| 149649 | GB193 | 5 assorted AC & DC fans (photo above) (5, 12, 24, 48VDC & 115VAC fans) | 4.5 | 14.95 | 12.95 |

## Surprise Electronic Components Grab Bag

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, ICs, connectors, sockets, headers, thermistors, LEDs, resistor networks, diodes, standoffs, transistors, oscillators/resonators, inductors, crystals, resistors, pots and switches (hundreds).

Best Seller!

| Part No. | Product No. | Description | 1 | 10 |
|---|---|---|---|---|
| 135263 | GB191LB | Hundreds of assorted electronic components | $19.95 | $17.95 |

## LEDs, Displays, Indicators, Photocells & Solar Cells

| Part No. | Product No. | Description | Wt. (lbs.) | 1 | 10 |
|---|---|---|---|---|---|
| 18041 | GB110 | 100 assorted LEDs & lamps (T1 & T1¾ round and rectangular) | 0.1 | $7.95 | $6.95 |
| 18323 | GB186 | 500 assorted LEDs & lamps (#18041) | 0.3 | 29.95 | 26.95 |
| 135271 | GB110LB | 1800 assorted LEDs & lamps (#18041) | 1.0 | 69.95 | 62.95 |
| 18201 | GB162 | 50 assorted sizes of colored displays (7-seg, LCD, dot-matrix, bar graph) | 0.5 | 14.95 | 13.49 |
| 2125616 | GB205 | 30 assorted LED indicators, panel mount, LED, neon, incandescent, various volts/colors | 0.8 | 12.95 | 11.49 |
| 169578 | GB125 | 50 assorted values photocells | 0.2 | 14.95 | 13.49 |
| 2113666 | SC-GRAB | 40 assorted size solar cells | 0.1 | 9.95 | 8.95 |

## Spacer, Standoff and Terminal Assortments

| | | | | | |
|---|---|---|---|---|---|
| 55968 | GB140 | 100 assorted 4-40, 6-32, 8-32 round/hex, aluminum/steel, spacers/standoffs | 0.3 | $14.95 | $12.95 |
| 135423 | GB140LB | 300 assorted same as P/N 55968 | 1.0 | 29.95 | 26.95 |
| 2082118 | GB203 | 100 assorted solderless terminals spade, ring, faston, butt, crimp types | 0.2 | 7.95 | 6.95 |

## Integrated Circuits and IC Sockets

| | | | | | |
|---|---|---|---|---|---|
| 17996 | GB108 | 100 assorted TTL series DIP & SMD (SOIC) (74, 74ALS, 74HC, 74HCT, 74F, 74LS, 74S) | 0.2 | $9.95 | $8.95 |
| 135280 | GB108LB | 400 assorted TTL series DIP & SMD (SOIC) | 1.0 | 29.95 | 26.95 |
| 18024 | GB109 | 100 assorted linear series (NSC, Motorola, TI) TO-3, 8 & 14-pin DIP, SOIC packages | 0.1 | 12.95 | 11.49 |
| 145242 | GB109LB | 300 assorted linear series (NSC, Motorola, TI) | 0.5 | 29.95 | 26.95 |
| 114964 | GB171 | 50 assorted Micros, RAMs, SRAMs, PROMs, EPROMs, CPU, DRAMMs (DIP) | 0.2 | 12.95 | 11.49 |
| 105620 | GB120 | 100 assorted sockets (DIP, PGA, SIMM, SIP) | 0.3 | 6.95 | 5.95 |
| 135386 | GB120LB | 300 assorted sockets (DIP, PGA, SIMM, SIP) | 1.0 | 14.95 | 12.95 |

## Trimmers, Single and Multi-Turn Potentiometers

| | | | | | |
|---|---|---|---|---|---|
| 18075 | GB113 | 100 assorted 1/10W to 1/5W trimmer pots (100Ω to 2MΩ values) | 0.1 | $9.95 | $8.95 |
| 18278 | GB174 | 100 asst. 1/4W to 3/4W linear, single & multi-turn pots (100Ω to 5MΩ assorted values) | 0.2 | 12.95 | 11.49 |
| 135407 | GB174LB | 300 asst. 1/4W to 3/4W linear pots (above) | 1.0 | 29.95 | 26.95 |

JAMECO ValuePro

## *Most Popular Components with Extra Spaces for Customized Expansion*

★Web Code: CKS

- Each kit includes drawer component cabinet (319600) and 20 plastic dividers (319611)
- Each kit has the most popular components in its category
- Each kit is designed for your specific expansion
- Includes identification labels for each drawer, with reorder numbers to replenish stock and blank adhesive labels for empty drawers
- Free standing or wall mountable cabinet • Weight of kits: 4.6 to 6.4 lbs.
- Cabinet size: 6.0"L x 15.0"W x 7.9"H • Drawer size: 5.5"L x 2.7"W x 1.5"H
- 20 clear plastic drawers (319601) and 20 dividers (319611) • Cabinet: ABS-black (P/N 319600, see Web)

20-drawer component cabinet with every kit!

81867 (Capacitor Kit)

85059 (Switch Kit)

## 7400 Series IC Kit

*Includes 350 pcs. (30 Types) 7400 (TTL) Integrated Circuits*

| 20 each | 10 each | 10 each | 10 each | 10 each | 10 each |
|---|---|---|---|---|---|
| 7400 | 7402 | 7416 | 7432 | 74121 | 74157 |
| 7404 | 7405 | 7417 | 7438 | 74123 | 74160 |
| 7406 | 7408 | 7420 | 7447 | 74132 | 74174 |
| 7407 | 7410 | 7427 | 7485 | 74151 | 74175 |
| 7474 | 7414 | 7430 | 74107 | 74153 | 74279 |

| Part No. | Description | 1 | 5 |
|---|---|---|---|
| 84953 | 350 pcs. 7400 series IC kit | $219.95 | $199.95 |

## Radial Electrolytic Capacitor Kit

*Includes 240 pcs. (15 Values) Radial Electrolytic Capacitors*

| 20 each | 20 each | 20 each | 10 each | 10 each |
|---|---|---|---|---|
| 1µF @ 50V | 3.3µF @ 50V | 22µF @ 50V | 100µF @ 50V | 1000µF @ 16V |
| 1µF @ 100V | 4.7µF @ 50V | 47µF @ 50V | 220µF @ 25V | 2200µF @ 25V |
| 2µF @ 50V | 10µF @ 50V | 100µF @ 25V | 470µF @ 25V | 3300µF @ 25V |

| | | | |
|---|---|---|---|
| 81867 | 240 pcs. Radial Capacitor kit | $44.95 | $39.95 |
| 130331 | Refill for 81867 (240 pcs.) | 29.95 | 24.95 |

## 1/4-Watt Carbon Film Resistor Kit

*Includes 540 pcs. (30 Values) 1/4-Watt 5% Resistors*

| 10 each | 10 each | 10 each | 10 each | 10 each | 50 each | 50 each |
|---|---|---|---|---|---|---|
| 10Ω | 390Ω | 2kΩ | 5.6kΩ | 47kΩ | 100Ω | 4.7kΩ |
| 47Ω | 470Ω | 2.2kΩ | 15kΩ | 470kΩ | 220Ω | 10kΩ |
| 150Ω | 680Ω | 2.7kΩ | 20kΩ | 1MΩ | 1kΩ | 100kΩ |
| 270Ω | 1.2kΩ | 3.3kΩ | 22kΩ | 10MΩ | — | — |
| 330Ω | 1.5kΩ | 5.1kΩ | 33kΩ | — | — | — |

| Part No. | Description | 1 | 5 |
|---|---|---|---|
| 81832 | 540 pcs. 1/4-watt Resistor kit | $29.95 | $26.95 |
| 103166 | Refill for 81832 (540 pcs.)℞ | 14.95 | 13.49 |

## Ceramic Disc Capacitor Kit

*Includes 520 pcs. (10 Values) 50V Ceramic Disc Capacitors*

| 100 each | 100 each | 20 each | 20 each | 20 each |
|---|---|---|---|---|
| .01µF | .047µF | 10pF | 47pF | 470pF |
| .022µF | .1µF | 22pF | 100pF | .001µF |

| | | | |
|---|---|---|---|
| 81859 | 520 pcs. Ceramic Capacitor kit | $39.95 | $34.95 |
| 130232 | Refill for 81859 (520 pcs.) | 24.95 | 22.49 |

## Spacers & Electronic Hardware Kit

*Includes 2700 pcs. (27 Types) Spacer, Hex Nuts Flat, Tooth & Lock Washers and Slotted PH Screws*

| 100 each Spacers | 100 each Hex Nuts | 100 each Flat | 100 each Internal Tooth | 100 each Split Lock | 100 each PH Machine |
|---|---|---|---|---|---|
| — | 2-56 | #2 | #2 | #2 | 2-56 x 1/4, 1/2 |
| 4-40 | 4-40 | #4 | #4 | #4 | 4-40 x 1/4, 1/2 |
| 6-32 | 6-32 | #6 | #6 | #6 | 6-32 x 1/4, 1/2 |
| 8-32 | 8-32 | #8 | #8 | #8 | 8-32 x 1/4, 1/2 |

| Part No. | Description | 1 | 5 |
|---|---|---|---|
| 108433 | 2700 pcs. Electronic Hardware kit | $79.95 | $71.95 |

## Switch Kit

*Includes 150 pcs. (15 Types) Pushbutton, DIP & Toggle Switches*

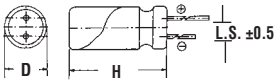
| 10 each | 10 each | 10 each | 10 each | 10 each |
|---|---|---|---|---|
| 21910 | 21979 | 26358 | 26649 | 139012 |
| 75854 | 26315 | 26367 | 2076228 | 153252 |
| 21952 | 26332 | 26623 | 109171 | 38820 |

| | | | |
|---|---|---|---|
| 85059 | 150 pcs. Switch kit | $99.95 | $89.95 |

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## Aluminum Radial-Lead Polarized Electrolytic Capacitors (±20%)

| | | |
|---|---|---|
| Leakage Current (20°C) | After 1 min. | 0.03CV or 4μA, whichever is greater |
| | After 2 mins. | 0.01CV or 3μA, whichever is greater |




† **CROSS REFERENCES: Nichicon:** LB/VX/USA/SR/SA/UVR; **Elna:** RC2/RE2; **IC:** RAR/RSS; **Marcon:** SEM/SSM; **Rubycon:** MS7/TWSS; **Sprague:** 501D/513D; **UCC:** SME/SRE/SRA/SRG; **Panasonic:** KA/KS/SU

### (±20%) 85°C

★Web Code: CCE

✳ Order in multiples of 10

| Part No. | Cross Ref. No.† | Mfr. | Value (μF) | Volt | Size (mm)* D x H x L.S. | Pricing 1 | 10 | 100 | 500 |
|---|---|---|---|---|---|---|---|---|---|
| 2151970 | R0.1/50 | JVP | 0.1 | 50 | 5 x 11 x 5 | ✳ | $.12 | $.09 | $.07 |
| 609043 | UVR2A0R1MDD℞ | JVP | 0.1 | 100 | 5 x 11 x 2 | ✳ | .12 | .09 | .07 |
| 330465 | RA0.47/50℞ | JVP | 0.47 | 50 | 5 x 11 x 2 | ✳ | .09 | .07 | .05 |
| 330431 | RA1/25℞ | JVP | 1 | 25 | 5 x 11 x 2 | ✳ | .09 | .07 | .05 |
| 94161 | 5R1/50℞ | JVP | 1 | 50 | 4 x 5 x 1.5 | ✳ | .09 | .07 | .05 |
| 29831 | R1/50 | JVP | 1 | 50 | 5 x 11 x 2 | ✳ | .08 | .06 | .04 |
| 29833 | R1/50℞ | JVP | 1 | 50 | 5 x 11 x 2 | ✳ | .12 | .09 | .07 |
| 115423 | R1/63℞ | JVP | 1 | 63 | 5 x 11 x 2 | ✳ | .12 | .09 | .07 |
| 93729 | R2.2/50 | JVP | 2.2 | 50 | 5 x 11 x 2 | ✳ | .09 | .07 | .05 |
| 93731 | R2.2/50℞ | JVP | 2.2 | 50 | 5 x 11 x 2 | ✳ | .12 | .09 | .07 |

### (±20%) 105°C

★Web Code: HAA

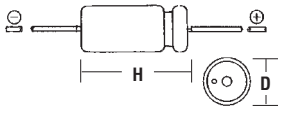
| Part No. | Cross Ref. No.† | Mfr. | Value (μF) | Volt | Size (mm)* D x H x L.S. | Pricing 1 | 10 | 100 | 500 |
|---|---|---|---|---|---|---|---|---|---|
| 607751 | UPW1E182MHD℞ | JVP | 1800 | 25 | 13 x 25 x 5 | $.75 | $.69 | $.59 | $.45 |
| 609342 | UVZ0J222MPD℞ | JVP | 2200 | 6.3 | 10 x 20 x 5 | .39 | .35 | .29 | .25 |
| 606563 | UHE1A222MPD℞ | JVP | 2200 | 10 | 10 x 24 x 5 | .45 | .39 | .35 | .25 |
| 609705 | UVZ1V222MHD℞ | JVP | 2200 | 35 | 16 x 26 x 7.5 | .69 | .65 | .49 | .39 |
| 158432 | R2200B50℞ | JVP | 2200 | 50 | 16 x 30 x 7.5 | .99 | .79 | .65 | .55 |
| 608278 | UPW1V332MHD℞ | JVP | 3300 | 35 | 18 x 33 x 7.5 | 1.25 | 1.09 | .89 | .69 |
| 609588 | UVZ1H332MHD℞ | JVP | 3300 | 50 | 18 x 36 x 7.5 | 1.49 | 1.25 | 1.05 | .85 |
| 607814 | UPW1E472MHD℞ | JVP | 4700 | 25 | 18 x 39 x 7.5 | 1.09 | .99 | .79 | .59 |
| 2125641 | R5600B16℞ | NIC | 5600 | 16 | 16 x 40 x 7.5 | .39 | .35 | .29 | .25 |
| 609473 | UVZ1C103MHD℞ | JVP | 10000 | 16 | 18 x 41 x 7.5 | 1.25 | 1.09 | .99 | .75 |

*Capacitor dimensions and styles may vary

## Aluminum Axial-Lead Electrolytic Capacitors (±20%) 85°C

★Web Code: GAA

| | |
|---|---|
| Operating temperature range | -40°C to +85°C |
| Leakage Current (After 2 minutes 20°C) | 0.02CV or 2μA, whichever is greater |




✳ Order in multiples 10

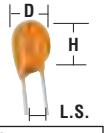
| Part No. | Product No. | Value (μF) | Voltage | Size (mm)* D x H | Pricing 1 | 10 | 100 | 1000 |
|---|---|---|---|---|---|---|---|---|
| 10868 | A1/50℞ | 1 | 50V | 5 x 12 | $.29 | $.25 | $.19 | $.15 |
| 10866 | A1/50 | 1 | 50V | 5 x 13 | ✳ | .19 | .15 | .12 |
| 93569 | A2.2/50 | 2.2 | 50V | 6 x 13 | ✳ | .19 | .15 | .12 |
| 11076 | A4.7/50 | 4.7 | 50V | 6 x 13 | ✳ | .19 | .15 | .12 |
| 1946199 | A10/16 | 10 | 16V | 4 x 7 | ✳ | .12 | .09 | .07 |

✳ Order in multiples 10

| Part No. | Product No. | Value (μF) | Voltage | Size (mm)* D x H | Pricing 1 | 10 | 100 | 1000 |
|---|---|---|---|---|---|---|---|---|
| 10882 | A10/50 | 10 | 50V | 6 x 12 | ✳ | $.19 | $.15 | $.12 |
| 331425 | AB10/450℞ | 10 | 450V | 13 x 25 | .75 | .69 | .65 | .59 |
| 199268 | A22J/25℞ | 22 | 25V | 6 x 12.5 | ✳ | .19 | .15 | .12 |
| 331433 | AB22/450℞ | 22 | 450V | 16 x 26.5 | 1.95 | 1.75 | 1.49 | 1.25 |
| 135319 | A47/25 | 47 | 25V | 8 x 16 | .35 | .29 | .25 | .22 |

## Resin Dipped Solid Tantalum Capacitors (±10%) 85°C

★Web Code: VAE




- Operating temperature range: -55°C to +85°C (+125°C with derating)
- Designed for entertainment and commercial equipment
- Exceptional temperature stability
- Rated voltage DC: ≤ +85°C
- Low leakage current
- Moisture-resistant
- Flame retardant coating

✳ Order in multiples 10

| Part No. | Product No. | Value (μF) | Volt (V) | Size (mm)* D x H x L.S. | Pricing 1 | 10 | 100 | 500 |
|---|---|---|---|---|---|---|---|---|
| 545641 | TAP106K025SCS℞ | 10 | 25 | 5.4 x 8.0 x 2.5 | $.55 | $.45 | $.35 | $.29 |
| 94080 | TM10/25℞ | 10 | 25 | 5.5 x 9.5 x 2.5 | .45 | .39 | .35 | .29 |
| 94078 | TM10/25 | 10 | 25 | 5.5 x 9.5 x 2.8 | .59 | .49 | .39 | .35 |
| 545650 | TAP106K035SCS℞ | 10 | 35 | 5.4 x 8.0 x 2.5 | 1.15 | .95 | .79 | .65 |
| 33689 | TM10/35 | 10 | 35 | 6.5 x 11.0 x 4.7 | .99 | .89 | .75 | .65 |
| 33719 | TM15/25 | 15 | 25 | 4.5 x 8.0 x 2.5 | .79 | .65 | .49 | .39 |
| 33751 | TM22/6.3 | 22 | 6.3 | 4.7 x 7.5 x 2.5 | ✳ | .12 | .09 | .07 |
| 545852 | TAP226K016SCS℞ | 22 | 16 | 5.4 x 8.0 x 2.5 | .69 | .55 | .45 | .35 |

*Capacitor dimensions and styles may vary

| Part No. | Product No. | Value (μF) | Volt (V) | Size (mm)* D x H x L.S. | Pricing 1 | 10 | 100 | 500 |
|---|---|---|---|---|---|---|---|---|
| 94094 | TM22/16 | 22 | 16 | 5.5 x 9.5 x 4.1 | $.55 | $.45 | $.35 | $.29 |
| 33785 | TM33/25 | 33 | 25 | 8.5 x 13.0 x 4.7 | 1.75 | 1.49 | 1.25 | .99 |
| 94123 | TM47/16 | 47 | 16 | 5.2 x 8.2 x 2.0 | 1.49 | 1.25 | .99 | .79 |
| 546118 | TAP476K016SCS℞ | 47 | 16 | 6.0 x 9.4 x 2.5 | 1.59 | 1.39 | 1.29 | 1.09 |
| 33822 | TM47 | 47 | 25 | 9.5 x 16.5 x 2.5 | 1.59 | 1.35 | 1.15 | .99 |
| 597450 | TAP107K016CCS℞ | 100 | 16 | 7.0 x 11.0 x 2.5 | 2.25 | 1.95 | 1.75 | 1.49 |
| 545684 | TAP107K020CCS℞ | 100 | 20 | 8.2 x 12.5 x 2.5 | 2.95 | 2.75 | 2.49 | 2.25 |
| 2178769 | TAP157M016CCS† | 150 | 16 | 7.5 x 10.7 x 4.5 | 1.49 | 1.25 | .99 | .89 |

† P/N 2178769: ±20%

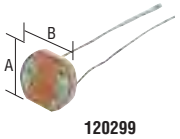
## Cadmium Sulfide (CdS) Photocells

★Web Code: CBG

- Generate variable signal based on detection of light levels
- Operating temperature: -30°C to +70°C
- Soldering: 230°C for 3 seconds

**Applications**: Auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers

202438




120299

| Part No. | Cross Ref. No. | Rating Vp | mW | Resistance (Ω) Dark | Light | Size (inches) A | B | Lead Spacing (inches) | Lead Length (inches) | Pricing 1 | 10 | 100 | 500 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 202366 | CDS0029001 | 150 | 90 | 300k | 4k | 0.14 | 0.17 | 0.10 | 1.02 | $1.49 | $1.35 | $1.19 | $.95 |
| 120310 | CDS0029004 | 150 | 90 | 2M | 27k | 0.14 | 0.17 | 0.10 | 1.44 | 1.49 | 1.35 | 1.19 | .95 |
| 202391 | CDS0029203 | 150 | 90 | 10M | 5k | 0.14 | 0.17 | 0.10 | 1.02 | 1.49 | 1.35 | 1.19 | .95 |
| 202382 | CDS0029008 | 150 | 90 | 20M | 10k | 0.14 | 0.17 | 0.10 | 1.02 | 1.49 | 1.35 | 1.19 | .95 |
| 202403 | CDS0018001 | 150 | 100 | 200k | 3k | 0.17 | 0.20 | 0.13 | 1.02 | 1.15 | .99 | .89 | .79 |
| 202420 | CDS0018003 | 150 | 100 | 500k | 16k | 0.17 | 0.20 | 0.13 | 1.02 | 1.15 | .99 | .89 | .79 |
| 202411 | CDS0018006 | 150 | 100 | 5M | 80k | 0.17 | 0.20 | 0.13 | 1.02 | 1.15 | .99 | .89 | .79 |
| 120301 | CDS0037001 | 200 | 150 | 300k | 3k | 0.25 | 0.29 | 0.20 | 1.02 | 1.49 | 1.35 | 1.19 | .95 |
| 202438 | CDS0037004 | 200 | 150 | 500k | 15k | 0.25 | 0.29 | 0.20 | 1.02 | 1.49 | 1.35 | 1.19 | .95 |
| 120299 | CDS0045001 | 350 | 400 | 300k | 8k | 0.37 | 0.43 | 0.30 | 1.44 | 1.79 | 1.59 | 1.45 | 1.19 |
| 202454 | CDS0045003 | 350 | 400 | 1M | 12k | 0.37 | 0.43 | 0.30 | 1.44 | 1.79 | 1.59 | 1.45 | 1.19 |

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## 1/8-Watt Carbon Film Resistor (±5%) Assortment

★Wire Round Resistors— Enter Web Code: TCH

| Part No. | Cross Ref. | Values | Description (see chart, right) | 1 | 5 |
|---|---|---|---|---|---|
| 108303 | ASST1830ℛ | ✗ # | 10 ea. of 24 values marked by ✗ and 50 ea. of 6 values marked below by # (540 pcs.) | $14.95 | $13.49 |
| 108329 | CAB182R | See description | 1/8 watt resistor component cabinet kit 30 values (540 pcs.), see Web | 29.95 | 26.95 |

### 1/8-Watt Resistor Assortment Values (Ohms)

★Web Code: DCR

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10 ✗ | 150 ✗ | 330 ✗ | 680 ✗ | 2.0k ✗ | 3.3k ✗ | 5.6k ✗ | 15k ✗ | 33k ✗ | 470k ✗ |
| 47 ✗ | 220 # | 390 ✗ | 1.0k # | 2.2k ✗ | 4.7k # | 6.8k ✗ | 22k ✗ | 47k ✗ | 1.0M ✗ |
| 100 # | 270 ✗ | 470 ✗ | 1.5k ✗ | 2.7k ✗ | 5.1k ✗ | 10k # | 27k ✗ | 100k # | 10M ✗ |

## 1/4-Watt Carbon Film Resistors (±5%) RoHS

★Web Code: RCN

★Component Kits — Enter Web Code: CKS

### Assortment Pricing: 1/4-Watt Carbon Film Resistors (±5%)

Assortments may not be combined for quantity price breaks.

| Part No. | Cross Ref. No. | Values Included | Description (see chart below) | Pricing 1 | 5 | 50 |
|---|---|---|---|---|---|---|
| 10720 | ASST8-R | — | 5 ea. 70 values (350 pcs.)ℛ | $10.95 | $9.95 | $8.95 |
| 2131039 | K/RES-E12 | ■ | 10 ea. 61 values (610 pcs.) | 11.95 | 10.95 | 9.95 |
| 103166 | ASST30-R | ● ✖ | 10 ea. 24 values marked ● and 50 ea. 6 values marked 6 (540 pcs.)ℛ | 14.95 | 13.49 | 11.95 |
| 10664 | ASST27-R | ▲ | 100 ea. 27 values marked (2,700 pcs.)ℛ | 34.95 | 31.49 | 28.95 |
| 81832 | — | — | 1/4-watt resistor cabinet kit 30 values, see page 9 (540 pcs.) | 29.95 | 26.95 | 24.95 |

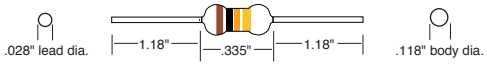
### Single Value Resistor Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use part number adjacent to ohms in chart below. Values may not be combined for quantity price breaks. *Values marked below also come in 10 packs.

| Pricing per Resistor (Please order in increments of 10* or 100) | *10 | 100 | 1000 | 5000 |
|---|---|---|---|---|
| Specify Part No. & Resistor Value | | | | |
| (See Standard Resistor Values Chart below) | $.099 | $.04 | $.03 | $.02 |

| Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 690216 | ℛ 2.2 | 690427 ■ | ℛ 15 | 690620 ▲✖■ | ℛ* 100 | 690822 ▲●■ | ℛ* 680 | 691024 ▲✖■ | ℛ* 4.7k | 691227 ▲●■ | ℛ* 33k | 691420 ■ | ℛ* 220k | 691622 | ℛ* 1.5M | | |
| 690224 | ℛ 2.4 | 690435 | ℛ 16 | 690638 | ℛ 110 | 690831 | ℛ 750 | 691032 ▲● | ℛ* 5.1k | 691235 | ℛ 36k | 691438 | ℛ 240k | 691631 | ℛ 1.6M | | |
| 690232 | ℛ 2.7 | 690443 ■ | ℛ 18 | 690646 ■ | ℛ* 120 | 690849 ■ | ℛ 820 | 691041 ▲●■ | ℛ* 5.6k | 691243 ■ | ℛ* 39k | 691446 ■ | ℛ 270k | 691892 | ℛ 1.8M | | |
| 690241 | ℛ 3.0 | 690451 | ℛ* 20 | 690654 | ℛ 130 | 690857 | ℛ 910 | 691059 | ℛ 6.2k | 691251 | ℛ 43k | 691454 | ℛ* 300k | 691649 | ℛ 2.0M | | |
| 690259 | ℛ 3.3 | 690460 ■ | ℛ* 22 | 690662 ▲●■ | ℛ* 150 | 690865 ▲✖■ | ℛ* 1.0k | 691067 ■ | ℛ* 6.8k | 691260 ▲●■ | ℛ* 47k | 691462 ■ | ℛ* 330k | 691657 | ℛ 2.2M | | |
| 690267 | ℛ 3.6 | 690478 | ℛ* 24 | 690671 | ℛ* 160 | 690873 | ℛ 1.1k | 691075 | ℛ 7.5k | 691278 | ℛ 51k | 691471 | ℛ 360k | 691665 | ℛ 2.4M | | |
| 690275 | ℛ 3.9 | 690486 ■ | ℛ 27 | 690689 ■ | ℛ* 180 | 690881 ●■ | ℛ* 1.2k | 691083 ■ | ℛ* 8.2k | 691286 ■ | ℛ* 56k | 691489 ■ | ℛ 390k | 691673 | ℛ 2.7M | | |
| 690283 | ℛ 4.3 | 690494 | ℛ 30 | 690697 | ℛ* 200 | 690890 | ℛ 1.3k | 691091 | ℛ* 9.1k | 691294 | ℛ 62k | 691497 | ℛ 430k | 691681 | ℛ 3.0M | | |
| 690291 | ℛ* 4.7 | 690507 ■ | ℛ 33 | 690700 ▲✖■ | ℛ* 220 | 690902 ▲●■ | ℛ* 1.5k | 691104 ▲✖■ | ℛ* 10k | 691307 ■ | ℛ* 68k | 691500 ▲●■ | ℛ* 470k | 691690 | ℛ 3.3M | | |
| 690304 | ℛ 5.1 | 690515 | ℛ 36 | 690718 | ℛ* 240 | 690911 | ℛ 1.6k | 691112 | ℛ 11k | 691315 | ℛ 75k | 691518 | ℛ 510k | 691702 | ℛ 3.6M | | |
| 690312 | ℛ 5.6 | 690523 ■ | ℛ 39 | 690726 ▲●■ | ℛ* 270 | 690929 ■ | ℛ 1.8k | 691121 ■ | ℛ 12k | 691323 ■ | ℛ 82k | 691526 ■ | ℛ* 560k | 691711 | ℛ* 3.9M | | |
| 690321 | ℛ 6.2 | 690531 | ℛ 43 | 690734 | ℛ* 300 | 690937 ▲● | ℛ* 2.0k | 691139 | ℛ 13k | 691331 | ℛ 91k | 691534 | ℛ 620k | 691737 | ℛ 4.7M | | |
| 690339 | ℛ 6.8 | 690540 ▲●■ | ℛ* 47 | 690742 ▲●■ | ℛ* 330 | 690945 ▲●■ | ℛ* 2.2k | 691147 ▲●■ | ℛ* 15k | 691340 ▲✖■ | ℛ* 100k | 691542 ■ | ℛ* 680k | 691745 | ℛ 5.1M | | |
| 690347 | ℛ 7.5 | 690558 | ℛ 51 | 690751 | ℛ 360 | 690953 | ℛ 2.4k | 691155 | ℛ 16k | 691358 | ℛ 110k | 691551 | ℛ 750k | 691753 | ℛ 5.6M | | |
| 690363 | ℛ 8.2 | 690566 ■ | ℛ 56 | 690769 ●■ | ℛ 390 | 690961 ▲●■ | ℛ* 2.7k | 691163 ■ | ℛ 18k | 691366 ■ | ℛ 120k | 691569 ■ | ℛ 820k | 691761 | ℛ 6.2M | | |
| 690371 | ℛ 9.1 | 690574 | ℛ 62 | 690777 | ℛ 430 | 690970 | ℛ 3.0k | 691171 ● | ℛ* 20k | 691374 | ℛ 130k | 691577 | ℛ 910k | 691770 | ℛ 6.8M | | |
| 690380 ▲●■ | ℛ* 10 | 690582 ■ | ℛ 68 | 690785 ▲●■ | ℛ* 470 | 690988 ▲●■ | ℛ* 3.3k | 691180 ▲●■ | ℛ* 22k | 691382 ■ | ℛ* 150k | 691585 ▲●■ | ℛ* 1.0M | 691788 | ℛ 7.5M | | |
| 690398 | ℛ 11 | 690591 | ℛ 75 | 690793 | ℛ* 510 | 690996 | ℛ 3.6k | 691198 | ℛ 24k | 691391 | ℛ 160k | 691593 | ℛ 1.1M | 691796 | ℛ 8.2M | | |
| 690401 ■ | ℛ 12 | 690603 ■ | ℛ* 82 | 690806 ■ | ℛ* 560 | 691008 ■ | ℛ* 3.9k | 691201 ■ | ℛ* 27k | 691403 ■ | ℛ 180k | 691606 | ℛ 1.2M | 691809 | ℛ 9.1M | | |
| 690419 | ℛ 13 | 690611 | ℛ 91 | 690814 | ℛ 620 | 691016 | ℛ 4.3k | 691219 | ℛ* 30k | 691411 | ℛ 200k | 691614 | ℛ 1.3M | 691817 ▲● | ℛ* 10M | | |

## 1/2-Watt Carbon Film Resistors (±5%) RoHS




★Web Code: SCH

### Assortment Pricing: 1/2-Watt Carbon Film Resistors (±5%)

Assortments may not be combined for quantity price breaks.

| Part No. | Cross Ref. No. | Values Included | Description (see chart below) | 1 | 5 |
|---|---|---|---|---|---|
| 107853 | ASST1230ℛ | ✗ # | 10 ea. of 24 values marked by 7 and 50 ea. of 6 values marked by # (540 pcs.) | $24.95 | $22.49 |
| 107845 | ASST1227ℛ | ✔ | 100 ea. of 27 values marked by 4 (2,700 pcs.) | 39.95 | 36.95 |
| 107837 | ASST1270ℛ | see description | 5 ea. of 70 values (every other value from 10Ω - 5.6MΩ)(350 pcs.) | 12.95 | 11.95 |
| 107879 | CAB12R | see description | 1/2-watt resistor component cabinet kit – 30 values (540 pcs.), see page 32 | 39.95 | 34.95 |

### Single Resistor Value Pricing: 1/2-Watt Carbon Film Resistors (±5%)

To order: Use part number adjacent to ohms in chart below. Values may not be combined for quantity price breaks. *Values marked below also come in 10 packs.

| Pricing Per Resistor (Please order in increments of 10* or 100) | *10 | 100 | 1000 | 5000 |
|---|---|---|---|---|
| Specify Part No. & Resistor Value | | | | |
| (See Standard Resistor Values Chart below) | $.099 | $.05 | $.04 | $.03 |

| Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 659577 | ℛ* 1.0 | 659868 | ℛ 16 | 661280 | ℛ 120 | 661440 | ℛ 560 | 661600 ✔✗ | ℛ 2.7k | 661781 | ℛ 13k | 661950 | ℛ 68k | 662215 | ℛ 820k | | |
| 659614 | ℛ 1.5 | 659884 | ℛ 20 | 661301 ✔✗ | ℛ* 150 | 661466 ✔✗ | ℛ 680 | 661618 | ℛ 3.0k | 661790 ✔✗ | ℛ 15k | 661976 | ℛ 82k | 662231 ✔✗ | ℛ* 1.0M | | |
| 659657 | ℛ 2.2 | 659892 | ℛ 22 | 661327 | ℛ 180 | 661474 | ℛ 750 | 661634 ✔✗ | ℛ 3.3k | 661811 | ℛ 18k | 661992 ✔# | ℛ* 100k | 662240 | ℛ 1.1M | | |
| 659673 | ℛ 2.7 | 661124 | ℛ 27 | 661335 | ℛ 200 | 661482 | ℛ 820 | 661642 | ℛ 3.6k | 661829 | ℛ 20k | 662004 | ℛ 110k | 662282 | ℛ 1.6M | | |
| 659737 | ℛ 4.7 | 661141 | ℛ 33 | 661343 ✔# | ℛ* 220 | 661503 ✔# | ℛ* 1.0k | 661651 | ℛ 3.9k | 661837 ✔✗ | ℛ 22k | 662039 | ℛ 150k | 662291 | ℛ 1.8M | | |
| 659788 | ℛ 7.5 | 661183 ✔✗ | ℛ 47 | 661351 | ℛ 240 | 661520 | ℛ 1.2k | 661677 ✔# | ℛ* 4.7k | 661845 | ℛ 24k | 662071 | ℛ 220k | 662311 | ℛ 2.2M | | |
| 659809 | ℛ 9.1 | 661191 | ℛ 51 | 661360 ✔✗ | ℛ 270 | 661538 | ℛ 1.3k | 661685 ✔✗ | ℛ 5.1k | 661853 ✗ | ℛ 27k | 662098 | ℛ 270k | 662320 | ℛ 2.4M | | |
| 659817 ✔✗ | ℛ* 10 | 661204 | ℛ 56 | 661378 | ℛ 300 | 661546 ✔✗ | ℛ 1.5k | 661693 ✔✗ | ℛ 5.6k | 661870 ✔✗ | ℛ 33k | 662119 | ℛ 330k | 662362 | ℛ 3.6M | | |
| 659825 | ℛ 11 | 661221 | ℛ 68 | 661386 ✔✗ | ℛ* 330 | 661554 | ℛ 1.6k | 661714 ✗ | ℛ 6.8k | 661896 | ℛ 39k | 662127 | ℛ 360k | 662397 | ℛ 4.7M | | |
| 659833 | ℛ 12 | 661239 | ℛ 75 | 661407 ✗ | ℛ 390 | 661562 | ℛ 1.8k | 661731 | ℛ 8.2k | 661909 | ℛ 43k | 662135 | ℛ 390k | 662426 | ℛ 6.2M | | |
| 659841 | ℛ 13 | 661247 | ℛ 82 | 661423 ✔✗ | ℛ* 470 | 661571 ✔✗ | ℛ 2.0k | 661757 ✔# | ℛ* 10k | 661917 ✔✗ | ℛ* 47k | 662151 ✔✗ | ℛ 470k | 662469 | ℛ 9.1M | | |
| 659850 | ℛ 15 | 661263 ✔# | ℛ* 100 | 661431 | ℛ 510 | 661589 ✔✗ | ℛ* 2.2k | 661773 | ℛ 12k | 661933 | ℛ 56k | 662186 | ℛ 620k | 662477 ✔✗ | ℛ 10M | | |

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## Bourns® JAMECO ValuePro 2W 22mm 10-Turn Wirewound Precision Pots

- Insulation resistance @ 500VDC: 1000MΩ (Bourns), 100MΩ (JVP)
- Operating temp. range: +1°C to +125°C (Bourns), -55°C to +125°C (JVP)
- Solder lug panel mount
- Bushings: **M**-metal; **P**-plastic

855818

2182611

*Web Code: JBE

| | | | Manufacturer | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Jameco ValuePro | | | | | Bourns® | | | | |
| Ohms | Series | Power Rating | Part No. | M/P | 1 | 10 | 100 | Part No. | M/P | 1 | 10 | 100 |
| 1k | 3540S | 2W @ 70°C | 2177846 | M | $9.95 | $8.95 | $7.95 | 1967740 | M | $17.95 | $16.95 | $15.95 |
| 1k | 3590S | 2W @ 40°C | 2177504 | M | 8.95 | 7.95 | 7.25 | 771112 | P | 12.95 | 11.95 | 10.95 |
| 5k | 3540S | 2W @ 70°C | 2111880 | M | 10.95 | 8.95 | 7.95 | 183548 | M | 17.95 | 16.95 | 15.95 |
| 5k | 3590S | 2W @ 40°C | 2177512 | M | 8.95 | 7.95 | 7.25 | — | — | — | — | — |
| 5k | 3590S | 2W @ 40°C | 2178161 | P | 8.95 | 7.95 | 7.25 | 855818 | M | 12.95 | 11.95 | 10.95 |
| 10k | 3540S | 2W @ 70°C | 2177854 | M | 10.95 | 8.95 | 7.95 | 183521 | M | 17.95 | 16.95 | 15.95 |
| 10k | 3590S | 2W @ 40°C | 2177521 | M | 8.95 | 7.95 | 7.25 | 771121 | P | 12.95 | 11.95 | 10.95 |
| 10k | 3590S | 2W @ 40°C | 1946535 | P | 8.95 | 7.95 | 7.25 | 771155 | M | 12.95 | 11.95 | 10.95 |
| 100k | 3540S | 2W @ 70°C | 2177862 | M | 10.95 | 8.95 | 7.95 | 2066716 | M | 21.95 | 20.95 | 19.95 |
| 100k | 3590S | 2W @ 40°C | 2177539 | M | 8.95 | 7.95 | 7.25 | 771139 | P | 12.95 | 11.95 | 10.95 |
| | | | 2182611 | Additional panel mtg hardware (3/8" hex nuts & washer) | | | | | | .79 | .69 | .59 |

## JAMECO ValuePro Cermet Trimmer Potentiometers

*Bourns®, Vishay/Spectrol, Bitech (Beckman) Series Equivalents*

5 Million pieces Pot Sale!
Visit Jameco.com and use web code *Web Code: TDF

- Resistance tolerance: ±10%
- Absolute minimum resistance: 2Ω
- Insulation resistance: 1000MΩ min. (500VDC)
- Temperature range: -55˚C to 125˚C

### Bourns® 3362 Series, Vishay/Spectrol 76P Series

- 1/2 watt, 1/4" square, single-turn top adjustment

| Part No. | Series | Value (Ω) | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 770371 | 3362H | 10k | $.69 | $.65 | $.59 |
| 182810 | 3362P | 500 | .75 | .65 | .55 |
| 253982 | 3362P | 1k | .89 | .75 | .65 |
| 182829 | 3362P | 5k | .89 | .75 | .65 |
| 182837 | 3362P | 10k | .89 | .75 | .65 |
| 254002 | 3362P | 20k | .89 | .75 | .65 |
| 254028 | 3362P | 50k | .89 | .75 | .65 |
| 254036 | 3362P | 100k | .89 | .75 | .65 |
| 254044 | 3362P | 500k | .75 | .65 | .55 |

### Bourns® 3296 Series, Vishay/Spectrol 64 Series

- 1/2 watt, 3/8" rectangular, 25-turn top adjustment

| Part No. | Series | Value (Ω) | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 853572 | 3296W | 10k | $1.75 | $1.49 | $1.25 |
| 853679 | 3296W | 20k | 1.75 | 1.49 | 1.25 |
| 853791 | 3296W | 50k | 1.75 | 1.49 | 1.25 |
| 853599 | 3296W | 100k | 1.75 | 1.49 | 1.25 |
| 240725 | 3296Y | 100 | 1.49 | 1.25 | 1.09 |
| 240750 | 3296Y | 1k | 1.49 | 1.25 | 1.09 |
| 240777 | 3296Y | 5k | 1.75 | 1.49 | 1.25 |
| 240427 | 3296Y | 10k | 1.49 | 1.25 | 1.09 |
| 240470 | 3296Y | 100k | 1.49 | 1.25 | 1.09 |

### Bourns® 3386 Series, Vishay/Spectrol 63 Series

- 1/2 watt, 3/8" square, single-turn top adjustment

| Part No. | Series | Value (Ω) | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 43123 | 3386P | 500 | $1.25 | $1.09 | $.99 |
| 42964 | 3386P | 1k | 1.25 | 1.09 | .99 |
| 43043 | 3386P | 2k | 1.25 | 1.09 | .99 |
| 43078 | 3386P | 5k | 1.25 | 1.09 | .99 |
| 43001 | 3386P | 10k | 1.25 | 1.09 | .99 |
| 2162775 | 72XLR (3386C)† | 20k | .99 | .89 | .79 |
| 43051 | 3386P | 20k | 1.25 | 1.09 | .99 |
| 254377 | 3386P | 25k | 1.25 | 1.09 | .99 |
| 43107 | 3386P | 50k | 1.25 | 1.09 | .99 |

† in-line front adjustment

### Bourns® 3006 Series, Vishay/Spectrol 43 Series

- 3/4 watt, 3/4" rectangular, 15-turn side adjustment

| Part No. | Series | Value (Ω) | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 241242 | 3006P | 200 | $1.25 | $1.09 | $.99 |
| 41937 | 3006P | 500 | 1.25 | 1.09 | .99 |
| 241269 | 3006P | 1k | 1.25 | 1.09 | .99 |
| 241270 | 3006P | 1k | 1.49 | 1.25 | 1.09 |
| 41865 | 3006P | 2k | 1.25 | 1.09 | .99 |
| 41890 | 3006P | 5k | 1.25 | 1.09 | .99 |
| 241286 | 3006P | 5k | 1.49 | 1.25 | 1.09 |
| 41822 | 3006P | 10k | 1.25 | 1.09 | .99 |

## 1/2-Watt 24mm Linear Taper (±20%)

- Rotational angle: 300° (±5°)
- Max. voltage: 500V • Shaft Diameter: 0.25"
- Withstanding voltage for 1 minute: 500VAC

ALPHA

*Use 2182602 for additional panel mounting hardware*

255477

264373

255662

| Qty. | 1 | 10 | 100 |
|---|---|---|---|
| Pricing | $1.39 | $1.25 | $1.09 |

| Part No. | Manufacturer Part No. | Shaft Length | Ohms |
|---|---|---|---|
| 255477 | RV24AF-10-15R1-B52 | 0.335" | 500 |
| 255485 | RV24AF-10-15R1-B13 | 0.335" | 1k |
| 255493 | RV24AF-10-15R1-B23 | 0.335" | 2k |
| 255514 | RV24AF-10-15R1-B53 | 0.335" | 5k |
| 255522 | RV24AF-10-15R1-B14 | 0.335" | 10k |
| 255531 | RV24AF-10-15R1-BF4 | 0.335" | 25k |
| 255549 | RV24AF-10-15R1-B54 | 0.335" | 50k |
| 255557 | RV24AF-10-15R1-B15 | 0.335" | 100k |
| 255565 | RV24AF-10-15R1-BF5 | 0.335" | 250k |
| 255573 | RV24AF-10-15R1-B55 | 0.335" | 500k |
| 255582 | RV24AF-10-15R1-B16 | 0.335" | 1M |
| 255600 | RV24AF-10-15R1-B26 | 0.335" | 2M |
| 264373 | RV24AF-10-20K-B52 | 0.531" | 500 |
| 264402 | RV24AF-10-20K-B53 | 0.531" | 5k |
| 264411 | RV24AF-10-20K-B14 | 0.531" | 10k |
| 264437 | RV24AF-10-20K-B15 | 0.531" | 100k |
| 264462 | RV24AF-10-20K-B16 | 0.531" | 1M |
| 255662 | RV24AF-10-40R1-B14 | 1.32" | 10k |
| 255696 | RV24AF-10-40R1-B15 | 1.32" | 100k |

## 2-Watt 22mm Linear Taper (±10%)

*RV4N Series (53C3)*

- 2W @ 70˚C ambient • Non-rotational key
- Temp. range: -55˚C to +120˚C
- Shaft length: 0.875" • Shaft dia.: 0.25"
- Mounting hole: 0.375"
- Max. panel thickness: 0.25"

13936

**Includes:** Mounting hardware

*Use 2182611 for additional panel mounting hardware*

| Qty. | 1 | 10 | 50 |
|---|---|---|---|
| Pricing | $10.95 | $9.95 | $8.95 |

| Part No. | Military No. | Ohms | Part No. | Military No. | Ohms |
|---|---|---|---|---|---|
| 241568 | RV4NAYSD101A | 100 | 13952 | RV4NAYSD103A | 10k |
| 13936 | RV4NAYSD102A | 1k | 2160518 | R24KM-B10K | 10k |
| 241613 | RV4NAYSD202A | 2k | 241656 | RV4NAYSD203A | 20k |
| 13995 | RV4NAYSD502A | 5k | 13979 | RV4NAYSD104A | 100k |
| 2160526 | R24KM-B5K | 5k | 241728 | RV4NAYSD105A | 1M |

## JAMECO ValuePro Instrumentation Knobs (1/4" & 1/8" Shaft Diameters)

*Web Code: EBD

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

Fig. 9

| Part No. | Product No. | Body | Pointer | H" x Dia." | Fig. | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|
| 265009 | JK-902B | Black | White | .60 x .95 | 1 | $.99 | $.89 | $.79 |
| 264998 | JK-902A | Black | White | .69 x 1.31 | 1 | .99 | .89 | .79 |
| 264990 | JK-901D | Black/alum | White | .47 x .78 | 2 | .95 | .85 | .75 |
| 264955 | JK-901C | Black/alum | White | .61 x 1.06 | 2 | .99 | .89 | .79 |
| 264946 | JK-901B | Black/alum | White | .64 x 1.29 | 2 | 1.25 | 1.09 | .99 |
| 264920 | JK-901A | Black/alum | White | .79 x 1.77 | 2 | 1.75 | 1.49 | 1.25 |
| 264912 | RN-114A | Black/alum | Numeric | .58 x 1.46 | 3 | .99 | .89 | .79 |
| 2158143 | RN-12P0S § | Black/alum | Numeric | .70 x 1.50 | 3 | .75 | .65 | .59 |
| 264892 | RN-113A | Black/alum | Numeric | .70 x 1.15 | 3 | .99 | .89 | .79 |
| 264883 | RN-112A | Black/alum | Numeric | .90 x 1.46 | 3 | .99 | .89 | .79 |

| Part No. | Product No. | Body | Pointer | H" x Dia." | Fig. | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|
| 265077 | JK-905C | Black/blue | White | .58 x .57 | 4 | $.99 | $.89 | $.79 |
| 265051 | JK-905A | Black/red | White | .58 x .57 | 4 | .99 | .89 | .79 |
| 265069 | JK-905B | Black/yellow | White | .58 x .57 | 4 | .99 | .89 | .79 |
| 265033 | JK-904C | Black/blue | White | .47 x .78 | 5 | .99 | .89 | .79 |
| 265041 | JK-904D | Black/green | White | .47 x .78 | 5 | .99 | .89 | .79 |
| 265018 | JK-904A | Black/red | White | .47 x .78 | 5 | .99 | .89 | .79 |
| 265025 | JK-904B | Black/yellow | White | .47 x .78 | 5 | .99 | .89 | .79 |
| 265122 | JK-906 | Black | White | .58 x .61 | 6 | 1.25 | 1.09 | .99 |
| 265244 | CR-MS-3-T18* | Gray | Blue | .68 x .51 | 7 | .69 | .59 | .49 |
| 265261 | CR-MS-5-T18* | Grey | Grey | .68 x .51 | 7 | .69 | .59 | .49 |
| 290125 | 42008-1† | Aluminum | Black | .50 x .625 | 8 | 2.19 | 1.95 | 1.75 |
| 138482 | KN031 | Aluminum | Black | .61 x .65 | 9 | 2.49 | 2.25 | 1.95 |
| 138502 | KN032 | Aluminum | Black | .87 x .70 | 9 | 2.65 | 2.39 | 2.15 |

* For use with 1/4" knurled shaft † 1/8" shaft diameter § Plastic flange

RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## UL1007 & UL1569 Rated Stranded Hook-Up Wire

★Web Code: JAS

- Applications: Interconnection circuits, wiring of computer and data processing equipment, automotive and applications
- Additional colors available online • 300V peak • PVC insulation • Stranded • Sold in 100' rolls • VW-1
- Temp. range: -40°C to 80°C (UL1007); -40°C to 105°C (UL1569) • Tin-plated copper • Additional lengths available online

Appliance Wiring Material (AWM) is a UL recognized covering of insulated wire & cable intended for internal wiring of appliances & equipment.

| AWG | Stranding | UL1007 | UL1569 | Black P/N | Red P/N | White P/N | Green P/N | Yellow P/N | Blue P/N | Brown P/N | Orange P/N | Violet P/N | Gray P/N | 1 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | 7 x 36 | x | x | 734611 | 734603 | 734610 | 734606 | 734605 | 734614 | 2184878 | 2184886 | 2184894 | 2184907 | $6.95 | $6.25 | $5.59 |
| 26 | 7 x 34 | x | x | 734511 | 734503 | 734510 | 734506 | 734505 | 734514 | 2184798 | 2184801 | 2184819 | 2184827 | 7.95 | 6.95 | 6.25 |
| 24 | 7 x 32 | x | x | 734411 | 734403 | 734410 | 734406 | 734405 | 734414 | 2171831 | 2171840 | 2171858 | 2171866 | 8.95 | 7.95 | 6.95 |
| 22 | 7 x 30 | x | | 126085 | 126034 | 126077 | 310852 | 310878 | 310886 | 2184991 | 2185002 | 2185011 | 2185029 | 9.95 | 8.95 | 7.95 |
| 22 | 7 x 30 | x | x | 734311 | 734303 | 734310 | 734306 | 734305 | 734314 | 2138071 | 2138089 | 2138097 | 2138100 | 9.95 | 8.95 | 7.95 |
| 20 | 10 x 30 | x | | 125840 | 125795 | 125831 | 310894 | 310915 | 310922 | 2185037 | 2185045 | 2185053 | 2185061 | 12.95 | 11.49 | 10.49 |
| 20 | 10 x 30 | x | x | 734211 | 734203 | 734210 | 734206 | 734205 | 734214 | 2171874 | 2171882 | 2171891 | 2171903 | 12.95 | 11.49 | 10.49 |
| 18 | 16 x 30 | x | | 125787 | 125736 | 125752 | 310932 | 310949 | 310958 | 2185070 | 2185088 | 2185096 | 2185109 | 15.95 | 14.49 | 12.95 |
| 18 | 16 x 30 | x | x | 734111 | 734103 | 734110 | 734106 | 734105 | 734114 | 2171911 | 2171920 | 2171938 | 2171946 | 15.95 | 14.49 | 12.95 |
| 16 | 26 x 30 | x | x | 734011 | 734003 | 734010 | 734006 | 734005 | 734014 | 2184835 | 2184843 | 2184851 | 2184860 | 18.95 | 16.95 | 14.95 |

## Solid Hook-Up Wire – 22 AWG

★Web Code: PAF

- Temperature range: -55°C to +105°C
- Passes UL VW-1 flame test • MIL-W-16878/1, type B PVC
- For use with breadboards such as the JE20 series, see Web
- Additional colors available online

| Length | Black P/N | Blue P/N | Green P/N | Red P/N | White P/N | Yellow P/N | 1 | 5 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 25' | 2152876 | 2152884 | 2152892 | 2152905 | 2153553 | 2152921 | $3.95 | $3.59 | $3.29 |
| 100' | 36792 | 36768 | 36822 | 36856 | 36881 | 36920 | 7.95 | 6.95 | 5.95 |
| 1000' | 36805 | 36776 | 36840 | 36864 | 36899 | 36928 | 59.95 | 54.95 | 49.95 |

## 1/4-Lb. Nichrome Resistance Wire

- 60% nickel, 16% chromium, 24% iron
- Excellent resistance characteristics
- Temperature: to 982°C (1800°F)
- 24 AWG
- Nominal O.D.: 0.0201"

★Web Code: ZOR

| Part No. | Length (ft.) | Ω/Ft. @ 68°F | 1 | 5 |
|---|---|---|---|---|
| 2119419 | 205 | 1.671 | $14.95 | $13.95 |

## Kynar™ Wire-Wrap Wire – 30 AWG

- Polyvinylidene fluoride insulation • Used for prototyping
- Silver plated copper (solid conductor) • UL 1423
- Temperature: -40°C to +125°C
- Passes UL VW-1 flame test

★Web Code: NAC

| 100 Foot Reel | | Pricing | |
|---|---|---|---|
| Part No. | Color | 1 | 5 |
| 22542 | Blue | $11.95 | $10.95 |
| 22577 | Black | 11.95 | 10.95 |
| 22631 | Red | 11.95 | 10.95 |
| 22665 | White | 11.95 | 10.95 |
| 22606 | Green | 11.95 | 10.95 |
| 22700 | Yellow | 11.95 | 10.95 |

| 1000 Foot Reel | | Pricing | |
|---|---|---|---|
| Part No. | Color | 1 | 5 |
| 22551 | Blue | $69.95 | $64.95 |
| 22585 | Black | 69.95 | 64.95 |
| 22649 | Red | 69.95 | 64.95 |
| 22673 | White | 69.95 | 64.95 |
| 22614 | Green | 69.95 | 64.95 |
| 22702 | Yellow | 69.95 | 64.95 |

## Stranded & Solid Hook-Up Wire Kits

- Solid: 105°C, tinned copper, MIL-W-16878/1, type B
- Stranded: 80°C, tin plated, UL1007
- Passes UL VW-1 flame test

★Web Code: PAF

| Part No. | AWG | Type | Voltage | Wire Length | †Colors | 1 | 5 |
|---|---|---|---|---|---|---|---|
| 2153705 | 22* | Solid | 600V | 25' | 0-5 | $16.95 | $14.95 |
| 2159189 | 22 | Solid | 600V | 100' | 0-5 | 36.95 | 32.49 |
| 2183752 | 22* | Solid | 600V | 100' | 0-5 | 39.95 | 35.95 |
| 2130917 | 24 | Stranded | 60V | 0-1=32', 2-9=16' | 0-9 | 12.95 | 11.95 |
| 2187876 | 24 | Stranded | 300V | 0-1=32', 2-9=16' | 0-9 | 11.95 | 10.95 |

†0=Black, 1=Red, 2=White, 3=Green, 4=Yellow, 5=Blue, 6=Brown, 7=Orange, 8=Violet, 9=Gray

*Includes dispenser box

★Cutters and Strippers— Enter Web Code GBU

## Category 5e Network Cable Assemblies

★Web Code: CAE

- 8P8C • 4 pair • Unshielded Twisted Pair (UTP) • 350 MHz
- 24 AWG (7 x 43) stranded • "Snagless" boot
- T568B color coded for easy wire tracing

| Part No. | Length | Color | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 168292 | 3 ft. | Gray | $1.75 | $1.59 | $1.39 |
| 201777 | 3 ft. | Red | 1.59 | 1.45 | 1.29 |
| 201785 | 7 ft. | Red | 2.75 | 2.49 | 2.25 |
| 201697 | 3 ft. | Black | 1.75 | 1.59 | 1.39 |
| 201700 | 7 ft. | Black | 2.75 | 2.49 | 2.25 |
| 201718 | 15 ft. | Black | 3.95 | 3.55 | 2.95 |
| 201726 | 25 ft. | Black | 6.49 | 5.95 | 5.49 |
| 201734 | 3 ft. | Blue | 1.75 | 1.59 | 1.39 |

| Part No. | Length | Color | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 1945381 | 5 ft. | Blue | $1.95 | $1.75 | $1.65 |
| 2138708 | 7 ft.* | Blue | 1.95 | 1.75 | 1.49 |
| 201742 | 7 ft. | Blue | 2.75 | 2.49 | 2.25 |
| 1945401 | 10 ft. | Blue | 2.95 | 2.75 | 2.49 |
| 201751 | 15 ft. | Blue | 3.95 | 3.55 | 2.95 |
| 201814 | 3 ft. | Yellow | 1.75 | 1.59 | 1.39 |
| 201822 | 7 ft. | Yellow | 2.49 | 2.25 | 1.95 |

*Without "Snagless" boot

## 2-Conductor Power/ Speaker Cable

★Web Code: VAL

- Black wire with white polarity stripe
- Temp. rating: 20°C to 60°C
- 24 AWG
- Stranded copper wire (7 x 32)
- Operating voltage: 300V

| Part No. | Cross Ref. No. | Length | 1 | 5 | 10 |
|---|---|---|---|---|---|
| 100280 | CAR45B-100 | 100' | $7.95 | $7.49 | $6.95 |
| 100299 | CAR45B-1K | 1000' | 59.95 | 54.95 | 49.95 |

## Multi-Conductor Cable

★Web Code: MCC

- 24 AWG stranded drain wire, 100% aluminum mylar shield
- Multi-colored wire
- Gray PVC jacket
- Insulation: PVC

| Part No. | Product No. | # of Conductor | Length | Nominal O.D. | 1 | 5 |
|---|---|---|---|---|---|---|
| 644391 | SC4-100 | 4 | 100' Reel | 0.200" | $29.95 | $26.95 |
| 644404 | SC4-1000 | 4 | 1000' Reel | 0.200" | 219.95 | 199.95 |
| 644412 | SC-925 | 9 | 25' Unreel | 0.230" | 15.95 | 14.35 |
| 644421 | SC9-100 | 9 | 100' Reel | 0.230" | 44.95 | 39.95 |
| 644439 | SC9-1000 | 9 | 1000' Reel | 0.230" | 349.95 | 329.95 |
| 644447 | SC15-25 | 15 | 25' Unreel | 0.280" | 24.95 | 22.95 |

## Zip Automotive Speaker Cable

NEW MARKED IN PINK

2173845

- Good for automotive or language labs
- High definition, low loss
- Red/black color coded PVC
- Voltage: 300VAC, 60VDC

| Part No. | AWG | Strands | Length | 1 | 5 |
|---|---|---|---|---|---|
| 2173845 | 18 | 16 x 30 | 100' | $29.95 | $26.95 |
| 2206299 | 18 | 16 x 30 | 25' | 7.95 | 6.95 |
| 2206301 | 16 | 19 x 29 | 25' | 9.95 | 8.95 |

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## Modular Plugs

Web Code: FBB

P = No. of positions
C = No. of contacts

103491

79290

79273

79281

119343

116611

- Unshield except P/N 116602 & 116611

✳ Order in multiples of 10

| Part No. | Mfr. | Description | Size (L" x W" x H") | UL | 1 | 10 | 100 | 1000 |
|---|---|---|---|---|---|---|---|---|
| 103491 | ValuePro | 4P4C (N/A) for flat or oval handset wire | .49 x .30 x .26 | None | ✳ | $.13 | $.12 | $.09 |
| 79290 | ValuePro | 6P4C (RJ14) for round stranded wire | .49 x .38 x .26 | UL94V-0 | ✳ | .15 | .13 | .10 |
| 79273 | ValuePro | 6P6C (RJ12) for flat stranded wire | .49 x .38 x .26 | None | .29 | .25 | .22 | .19 |
| 79281 | ValuePro | 8P8C (RJ45) for flat stranded wire | .85 x .46 x .31 | None | .45 | .39 | .35 | .29 |
| 119343 | ValuePro | 8P8C (RJ45) for round solid wire | .85 x .46 x .31 | None | .45 | .39 | .35 | .29 |
| 524411 | AMP | 8P8C (RJ45) for round solid wire℞ | .85 x .46 x .31 | UL94V-2 | .79 | .75 | .69 | .59 |
| 524525 | AMP | 8P8C (RJ45) for round stranded wire℞ | .84 x .46 x .31 | UL94V-2 | .79 | .75 | .69 | .65 |
| 116602 | ValuePro | 8P8C (RJ45) for round stranded wire℞* | .85 x .46 x .31 | UL94V-2 | .95 | .89 | .79 | .69 |
| 116611 | ValuePro | 8P8C (RJ45) for round stranded wire℞* | .87 x .46 x .33 | UL94V-0 | 1.09 | .99 | .89 | .79 |
| 180646 | ValuePro | 10P10C (RJ50) for round stranded wire | .85 x .46 x .31 | None | .49 | .45 | .39 | .35 |

*Shielded

## Modular Jacks

Available in multiple sizes and styles.

Web Code: NEL

115128

151766

124039

115837

524488

| Part No. | ◉Mfr. | Description | Panel Mnt. | Size (L" x W" x H") | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 2178224 | ADM | 4P4C (N/A) side entry, std. latch, no panel stops, for handset℞ | No | .51 x .39 x .57 | $.45 | $.39 | $.35 |
| 115128 | JVP | 4P4C (N/A) side entry, std. latch, no panel stops, for handset℞ | No | .51 x .40 x .57 | .45 | .39 | .35 |
| 151766 | JVP | 6P4C (RJ14) side entry, std. latch, panel stops℞ | Yes | .80 x .52 x .59 | .65 | .59 | .55 |
| 124039 | JVP | 6P6C (RJ25) top entry, std. latch, panel stops, 6" leads℞ | Yes | .54 x .59 x .72 | 1.25 | 1.09 | .99 |
| 524277 | AMP | 6P6C (RJ25) top entry, std. latch, panel stops | Yes | .53 x .64 x .63 | 1.29 | 1.19 | 1.09 |
| 2178216 | ADM | 6P6C (RJ25) side entry, std. latch, panel stops℞ | Yes | .59 x .56 x .57 | .65 | .59 | .55 |
| 115837 | JVP | 6P6C (RJ25) side entry, std. latch, panel stops℞ | Yes | .51 x .48 x .57 | .85 | .75 | .65 |
| 524488 | AMP | 8P8C (RJ45) side entry, std. latch, no panel stops | Yes | .66 x .62 x .63 | .95 | .85 | .75 |

## RS-232-to-Registered Modular Datacom Adapters

Simplify networking applications when changing your RS-232 port to an RJ11, RJ12 or RJ45 modular jack.

**Includes:** All necessary hardware and wiring

Web Code: RDR

66181

66237

| Part No. | ◉Mfr. | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 66181 | JVP | DB9 M to RJ12 (6P6C) | $1.75 | $1.49 | $1.35 |
| 66191 | JVP | DB9 M to RJ45 (8P8C)℞ | 2.25 | 1.95 | 1.75 |
| 614977 | GCE | DB9 M to RJ45 (8P8C) | 2.49 | 2.25 | 1.95 |
| 614985 | GCE | DB9 F to RJ11 (4P4C) | 1.95 | 1.75 | 1.49 |
| 114738 | JVP | DB9 F to RJ12 (6P4C)℞ | 1.95 | 1.75 | 1.59 |
| 66203 | JVP | DB9 F to RJ12 (6P6C)℞ | 2.49 | 2.25 | 1.95 |

*Black

| Part No. | ◉Mfr. | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 66212 | JVP | DB9 F to RJ45 (8P8C)℞ | $2.75 | $2.49 | $2.25 |
| 615005 | GCE | DB9 F to RJ45 (8P8C) | 2.75 | 2.49 | 2.25 |
| 66229 | JVP | DB25 M to RJ12 (6P6C) | 2.25 | 1.95 | 1.75 |
| 66237 | JVP | DB25 M to RJ45 (8P8C) | 1.85 | 1.69 | 1.49 |
| 2179420 | SPC | DB25 M to RJ45 (8P8C)℞* | 1.75 | 1.59 | 1.39 |
| 66254 | JVP | DB25 F to RJ45 (8P8C)℞ | 1.85 | 1.69 | 1.49 |

◉ ADM = Adam Tech | AMP = AMP | GCE = GC Electronics | JVP = Jameco ValuePro | SPC = SPC Technology

## 3M Heat Shrink Tubing Kits

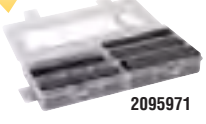
2:1 Shrink Ratio

Web Code: HST

A selection of heat shrinkable flexible polyolefin tubing that offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 275°F (135°C).

| 2095963 | | 2095971 | | 2095947 | | 285481 | | 645976 | |
|---|---|---|---|---|---|---|---|---|---|
| Size | Pieces | Size | Pieces | Size | Pieces | Size | Pieces | Size | Pieces |
| 1/16" | 56 | 1/8" | 12 | 1/16" | 56 | 3/16" | 30 | 3/32" | 35 |
| 3/32" | 35 | 1/4" | 10 | 3/32" | 35 | 1/4" | 28 | 1/8" | 28 |
| 1/8" | 28 | 3/8" | 6 | 1/8" | 28 | 3/8" | 20 | 3/16" | 21 |
| 3/16" | 18 | 1/2" | 4 | 3/16" | 18 | 1/2" | 14 | 1/4" | 21 |
| 1/4" | 9 | 3/4" | 3 | 1/4" | 9 | 3/4" | 6 | 3/8" | 14 |
| 3/8" | 8 | 1" | 2 | 3/8" | 8 | 1" | 4 | 1/2" | 14 |

| Part No. | Mfr. | Description | Pieces | Length | 1 | 5 |
|---|---|---|---|---|---|---|
| 2095963 | ValuePro | Black, assorted diameters | 154 | 4" | $19.95 | $17.95 |
| 2095971 | ValuePro | Black, dual wall, moisture resistant | 37 | 4" | 22.95 | 19.95 |
| 2095947 | ValuePro | Black/red/white/yellow/blue/green/clear | 154 | 4" | 22.95 | 19.95 |
| 285481 | 3M | Black, assorted diameters | 102 | 6" | 69.95 | 64.95 |
| 645976 | 3M | Black/red/white/yellow/blue/green/clear℞ | 133 | 6" | 69.95 | 64.95 |


2095971

285481

645976

## Modular Jack Boxes

Fig. 1
W: 2.0"
H: 2.2"
D: 0.9"

Fig. 2
W: 1.5"
H: 2.4"
D: 1.1"

Web Code: UAM

| Part No. | Description | Fig. | Pricing 1 | 10 | 100 |
|---|---|---|---|---|---|
| 71984 | 6P6C adhesive jack RJ11 (beige) | 1 | $1.19 | $1.05 | $.89 |
| 71651 | 8P8C adhesive jack RJ45 (beige) | 1 | 1.29 | 1.15 | .99 |
| 2178312 | 8P8C adhesive jack RJ45 (single, white)℞ | 2 | 2.95 | 2.75 | 2.49 |

## 3" to 13" Nylon Cable Ties

### Standard

70561

- Cable ties made from UL approved Nylon 66
- Temp. range: -40°C to +85°C
- Flammability rating: UL 94V-2
- Color: natural

Web Code: QAV

Order in multiples of 100

| Part No. | Size (L" x W") | Tensile Strength | 100 | 1000 |
|---|---|---|---|---|
| 70561 | 3.0 x 0.10℞ | 18 lbs. | $.03 | $.02 |
| 126544 | 4.0 x 0.10℞ | 18 lbs. | .04 | .03 |
| 139150 | 8.0 x 0.10 | 18 lbs. | .05 | .04 |
| 182669 | 8.0 x 0.13℞ | 18 lbs. | .06 | .05 |
| 182685 | 8.0 x 0.18℞ | 18 lbs. | .07 | .06 |
| 70907 | 6.0 x 0.14℞ | 40 lbs. | .08 | .06 |
| 190756 | 10.0 x 0.14 | 40 lbs. | .09 | .07 |
| 190772 | 11.0 x 0.19 | 40 lbs. | .10 | .08 |
| 190764 | 13.0 x 0.14 | 40 lbs. | .11 | .09 |

## Polyolefin Round Heat Shrink Tubing

### FIT221/FIT221B Series

419119

Insulation from environment and resistance from water, fungus, and UV light. Use for insulation and repair, wire and cable harnessing / bundling, cable and connector protection, and wire and tubing splicing and connecting.

- Operating temp: -55°C to 135°C
- Shrinkage ratio: 2:1 @ 121°C
- Dielectric strength: 500V/mil (197kV/cm)
- Volume resistivity: $10^{14}\Omega$-cm

Web Code: HST

### Clear (4-foot pieces)

| Part No. | Mfr. Part No. | Before/After ID (in.) | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 419119 | FIT221-3/64℞ | .046/.023 | $1.09 | $.99 | $.89 |
| 419135 | FIT221-1/16℞ | .063/.031 | 1.19 | 1.09 | .99 |
| 419231 | FIT221-3/8℞ | .375/.187 | 2.49 | 2.25 | 1.95 |
| 419274 | FIT221-3/4℞ | .750/.375 | 3.49 | 2.95 | 2.65 |
| 2113682 | TT-72801℞ | 1.00/.500 | 3.95 | 3.55 | 3.19 |

### Black (4-foot pieces)

| | | | | | |
|---|---|---|---|---|---|
| 419101 | FIT221B-3/64℞ | .046/.023 | $1.09 | $.99 | $.89 |
| 419127 | FIT221B-1/16℞ | .063/.031 | 1.19 | 1.09 | .99 |
| 419143 | FIT221B-3/32℞ | .093/.046 | 1.29 | 1.15 | .99 |
| 419160 | FIT221B-1/8℞ | .125/.062 | 1.39 | 1.25 | 1.09 |
| 419186 | FIT221B-3/16℞ | .187/.093 | 1.69 | 1.49 | 1.35 |
| 419207 | FIT221B-1/4℞ | .250/.125 | 1.89 | 1.69 | 1.49 |
| 419223 | FIT221B-3/8℞ | .375/.187 | 2.25 | 1.95 | 1.75 |
| 419240 | FIT221B-1/2℞ | .500/.250 | 2.69 | 2.39 | 2.09 |
| 2192721 | EFP200-3/4℞ | .750/.375 | 3.95 | 3.59 | 3.25 |

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Switchcraft / JAMECO ValuePro — Stereo, Phone, Audio Plugs & Jacks

★Web Code: AJS

| Part No. | Mfr. | Product No. | Fig. | Description | Dimensions (mm) | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|
| 231176 | ValuePro | AP340R | 1 | 3.5mm stereo audio plug, plastic | 53L x 4.12 ID | $.79 | $.69 | $.55 |
| 231167 | ValuePro | AP343 | 2 | 3.5mm stereo audio plug, metal | 52.4L x 4.25 ID | 1.49 | 1.25 | .99 |
| 281789 | Switchcraft | 297R | 3 | 1/4" stereo phone audio plug, metal | 73.7L x 7.6 ID | 4.95 | 4.49 | 3.95 |
| 281771 | Switchcraft | 280R | 4 | 1/4" mono phone audio plug, metal | 73.7L x 7.6 ID | 4.49 | 3.69 | 3.25 |
| 229921 | ValuePro | JR1625BLK | 5 | RCA plug, plastic, black (5 pk) | 51.5L x 5.0 ID | 1.65 | 1.49 | 1.35 |
| 229930 | ValuePro | JR1625 | 6 | RCA plug, plastic, red (5 pk) | 51.5L x 5.0 ID | 1.65 | 1.49 | 1.35 |
| 2081238 | Shogyo | SCJ330 2 | 7 | 3.5mm mono audio jack, panel mount | 10.6H x 9.0W x 21.7L | 1.95 | 1.75 | 1.49 |
| 2095437 | ValuePro | J355W 1 | 7 | 3.5mm stereo audio jack, panel mt., terminal | 10.1H x 8.4W x 17.6L | 1.49 | 1.15 | .99 |
| 281834 | Switchcraft | 41R | 8 | 3.5mm audio jack, panel mount, terminal | 7.8L x 5.9 Dia. | 2.95 | 2.59 | 2.29 |
| 281746 | Switchcraft | 12BR 3 | 9 | 1/4" stereo phone audio jack, 3-pos., double open | 14.7L x 9.1 Dia. | 2.95 | 2.59 | 2.29 |
| 1774016 | Switchcraft | MN12B | 10 | 1/4" mono phone jack, 3 cond. plastic bushing | 19.9L x 15.7W x 15.7H | 2.95 | 2.59 | 2.29 |

Additional panel mounting hardware – 1 2183218, 2 2182602, 3 2182611

## AMP / Amphenol Connex — D-Subminiature Connectors

JAMECO ValuePro

### Right Angle PCB Mount

★Web Code: ESO

15150

**Metal .318" Setback – Tin plated short style**

✳ Order in multiples of 10

| Part No. | Manufacturer | Product No. | Contacts | Gender | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 1952839 | Foxconn | D-SUB-9M† | 9 | M | $.49 | $.39 | $.29 |
| 104943 | ValuePro | DB9P318R | 9 | M | .85 | .75 | .65 |
| 2178540 | JST | JSEY9P3B6L19-13 | 9 | M | 2.29 | 1.95 | 1.75 |
| 104952 | ValuePro | DB9S318R | 9 | F | .79 | .69 | .59 |
| 2180981 | JST | JSEY9S3B6L19-13 | 9 | F | 1.95 | 1.75 | 1.49 |
| 71124 | ValuePro | DA15P318R† | 15 | M | .75 | .65 | .55 |
| 71125 | ValuePro | DA15P318R | 15 | M | .85 | .79 | .65 |
| 1952273 | Kycon | HDDSUB-15S†* | 15 | F | ✳ | .09 | .08 |
| 77956 | ValuePro | DA15S318 | 15 | F | .85 | .79 | .65 |
| 2145001 | ValuePro | PT285805-15†† | 15 | F | .45 | .35 | .29 |
| 71466 | ValuePro | HDDB15S318R* | 15 | F | .99 | .89 | .79 |
| 15150 | ValuePro | DB25P318R | 25 | M | .85 | .75 | .65 |
| 15182 | ValuePro | DB25S318R | 25 | F | .95 | .85 | .75 |
| 2178558 | JST | JSBY25S3B6L19-13 | 25 | F | 2.49 | 2.25 | 1.95 |
| 71706 | ValuePro | DC37P318† | 37 | M | 1.09 | .99 | .89 |
| 78183 | ValuePro | DC37S318R† | 37 | F | 1.25 | 1.09 | .95 |

*High Density † Without female jack screws †† Non-removable jack screws

### Metal Solder-Cup

★Web Code: EAB

203799

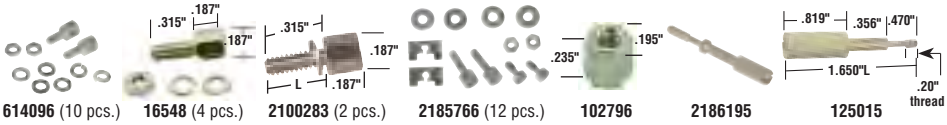
| Part No. | Manufacturer | Product No. | Contacts | Gender | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 15748 | ValuePro | 1001-9P-RR | 9 | M | $.75 | $.65 | $.55 |
| 222990 | AMP | 747904-2 | 9 | M | 2.75 | 2.25 | 2.09 |
| 15771 | ValuePro | 500-109 | 9 | F | .75 | .65 | .55 |
| 2125510 | Amphenol | DB9S-SFJ# | 9 | F | 1.25 | 1.09 | .95 |
| 223052 | AMP | 747905-2 | 9 | F | 2.95 | 2.75 | 2.49 |
| 15035 | ValuePro | 1001-15P-RR | 15 | M | .85 | .69 | .59 |
| 15078 | ValuePro | 1002-15P-RR* | 15 | M | 1.09 | .89 | .75 |
| 15052 | ValuePro | 1001-15S-RR | 15 | F | .85 | .69 | .59 |
| 164823 | ValuePro | 1002-15S-RR* | 15 | F | 1.09 | .89 | .75 |
| 15115 | ValuePro | 1001-25P-RR | 25 | M | 1.25 | .99 | .89 |
| 223010 | AMP | 747912-2 | 25 | M | 3.25 | 2.95 | 2.75 |
| 15157 | ValuePro | 500-125 | 25 | F | 1.25 | .99 | .89 |
| 203799 | ValuePro | 1002-26P* | 26 | M | .75 | .65 | .59 |
| 15473 | ValuePro | 1002-37PR | 37 | M | 1.49 | 1.25 | 1.09 |
| 482724 | Amphenol | EDC37S | 37 | F | .99 | .89 | .75 |
| 15500 | ValuePro | 1001-37SR | 37 | F | 1.49 | 1.25 | 1.09 |
| 2185758 | Amphenol-RF | 17-20370-11 | 37 | M | 2.95 | 2.65 | 2.39 |
| 482732 | Amphenol | EDD50P | 50 | M | .75 | .65 | .59 |
| 482741 | Amphenol | EDD50S | 50 | F | .49 | .45 | .39 |

*High Density # With female jack screw

## AMP — Hardware for D-Sub Connector Hoods

Amphenol RF

★Web Code: PAM




614096 (10 pcs.) 16548 (4 pcs.) 2100283 (2 pcs.) 2185766 (12 pcs.) 102796 2186195 125015

### 4-40 Hex Jack Screw Sets

**614096:** 4-40 Hex (.187"W x .187"H x .250"L thread) jack screw, nuts & washer set (2) – plating A

**16548:** 4-40 Hex (.187"W x .187"H x .315"L thread) jack screw, nut & washer set – plating B

**2100283:** 4-40 Hex (.187"W x .187"H x .315"L thread) jack screw with lock washer – plating D

**444912:** 4-40 Hex (.187"W x .187"H x .630"L thread) jack screw, nut & washers set – plating C

**2185766:** 4-40 Hex (.187"W x .187"H x .356"L thread) jack screw, nut & washers screws & clip – plating A

✳ Order in multiples of 10

| Part No. | Mfr. | Prod. No. | Plating* | 1 | 10 | 100 |
|---|---|---|---|---|---|---|
| 614096 | AMP | 745563R | A | $.99 | $.89 | $.79 |
| 16548 | ValuePro | 14-522R | B | .69 | .55 | .49 |
| 2100283 | ValuePro | JS4403LW | D | ✳ | .19 | .15 |
| 444912 | ValuePro | D20418-39 | C | 1.95 | 1.75 | 1.59 |
| 2185766 | Amphenol | 17-768 | A | 1.95 | 1.75 | 1.49 |

### 4-40 x .187" Jack Screws

| Part No. | Mfr. | Length | Plating* | 1 | 10 | 100 |
|---|---|---|---|---|---|---|
| 169931 | ValuePro R | .275" | A | $.29 | $.25 | $.19 |
| 102816 | ValuePro | .437" | B | .45 | .39 | .29 |
| 2183390 | ValuePro | .467" | A | .35 | .29 | .25 |
| 108987 | ValuePro R | .515" | A | .49 | .45 | .35 |

### 4-40 x .187"/.195" Standoffs

| | | | | | | |
|---|---|---|---|---|---|---|
| 175636 | ValuePro | .187" | B | $.29 | $.25 | $.19 |
| 102796 | ValuePro R | .235" | A | .39 | .35 | .29 |

### 4-40 Slotted D-Sub Knurled Thumbscrews

| | | | | | | |
|---|---|---|---|---|---|---|
| 2186195 | SPC | 1.45" | B | $.29 | $.25 | $.19 |
| 2186216 | SPC | 1.45" | B | .29 | .25 | .19 |
| 2179438 | SPC (2pk)R | 2.83" | B | .79 | .69 | .59 |

### 4-40 Slotted D-Sub Plastic Thumbscrew

| | | | | | | |
|---|---|---|---|---|---|---|
| 125015 | ValuePro R | 1.65" | A | $.39 | $.35 | $.29 |

*Plating – **A:** Zinc, clear chromate **B:** Chrome **C:** Zinc, yellow chromate **D:** Chrome with lock washer

## JAMECO ValuePro — D-Sub Connector Hoods

★Web Code: DAB

25620 Metallized 230893 Plastic 15086 Plastic

- Use with D-sub solder cup and housing style connectors (hardware included)

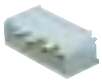
**D Series:** Plastic hood with strain relief (gray)
**MD Series:** Metal coated plastic hood w/ strain relief
**MH Series:** Die-cast metal hood with strain relief

| Part No. | Mfr. | Product No. | Pins | 1 | 10 | 100 |
|---|---|---|---|---|---|---|
| 15722 | ValuePro | DB9HR | 9 | $.69 | $.59 | $.49 |
| 25620 | ValuePro | MDB9H | 9 | .75 | .69 | .59 |
| 147741 | ValuePro | MHDB9R | 9 | 1.75 | 1.49 | 1.25 |
| 230893 | AMP | 205729-1† | 9 | 2.95 | 2.75 | 2.49 |
| 15019 | ValuePro | DA15HR | 15 | .89 | .75 | .65 |
| 25567 | ValuePro | MDA15HR | 15 | 1.09 | .95 | .75 |
| 15086 | ValuePro | DB25HR | 25 | .69 | .59 | .49 |
| 25604 | ValuePro | MDB25HR | 25 | .99 | .85 | .69 |
| 15107 | ValuePro | MHDB25R | 25 | 2.49 | 2.25 | 1.95 |
| 15457 | ValuePro | DC37HR | 37 | 1.25 | 1.09 | .89 |
| 25612 | ValuePro | MDC37HR | 37 | .99 | .89 | .79 |

† Plastic clam shell hood (black)

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## Power Connectors & Pins


109146

117568

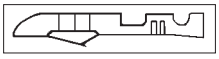
42730 (Male for 42076)

42650 (Female for 42068)

42076 (Male)

42068 (Female)

*Web Code: KAP


114922

**Connector & Housing Specifications:**
- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

**Crimp Pin Specifications:**
- Material: tin plated brass
- Current rating: 1.5A
- Wire size range: 18-24 AWG
- Use crimp tool P/N 99443 (see Web)

### .200" – For 5.25" Disk Drives & Power Supplies

**42076 & 42068 Connector Housings:**
- External key bar indicates pin 1
- Extraction tools, P/Ns 131887 & 131879 (see Web)
- Keyed mating connectors

✳ Order in multiples of 10

| Part No. | Description | 1 | 10 | 100 |
|---|---|---|---|---|
| 109146 | 4-pin male vert. PCB mntg | $.85 | $.75 | $.65 |
| 117568 | 4-pin male PCB mntg, horiz. edge mnt | .95 | .85 | .75 |
| 42076 | 4-pin male housing | ✳ | .19 | .15 |
| 42068 | 4-pin female housing | ✳ | .19 | .15 |
| 42730 | Male crimp pin for 42076 | ✳ | .19 | .15 |
| 42650 | Female crimp pin for 42068 | ✳ | .15 | .12 |

### .100" – For 3.5" Disk Drives & Power Supplies

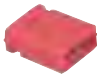
- Voltage rating: 250V AC, DC
- Insulation resistance: 1000MΩ min.
- Wire guage: 22-26 AWG

✳ Order in multiples of 10

| Part No. | Description | 1 | 10 | 100 |
|---|---|---|---|---|
| 114922 | Female crimp pin for 114931 | ✳ | .19 | .15 |
| 115000 | 4-pin male rt. angle PCB mounting | .49 | .45 | .39 |

## .100" & 2mm Shorting Blocks

22024 (open)


112432 (closed)

152671 (closed)

- Mates to .025" square posts on .100" centers
- Shorts headers/jumper blocks or color code strip line plugs
- Mate with male header (P/N 109576, below)
- Pin material: phosphor bronze

*Web Code: MAC

**Open:** Open on top to allow for a test point
**Closed:** Closed top

**119264:** 2mm (for disk drives)

Order in multiples of 10

| Part No. | Description | 10 | 100 | 500 |
|---|---|---|---|---|
| 22024 | Top open, black (.100") | $.12 | $.09 | $.07 |
| 112417 | Top open, red (.100") | .12 | .09 | .07 |
| 19141 | Top closed, black (.100") | .12 | .09 | .07 |
| 112432 | Top closed, red (.100") | .12 | .09 | .07 |
| 152671 | Top closed, black tab (.100") | .15 | .12 | .09 |

## molex KK® Series .100" (2.54mm) Crimp Terminals

- Current: phosphor bronze – 4.0A max.; brass – 2.5A max.
- Insulation range: 0.062" (1.58mm) diameter max.
- Accommodates 22 to 30 AWG

*Web Code: JCT

234931

462969

463005

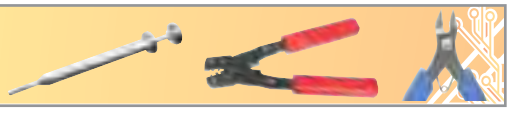
### Bulk Packaged

Order in multiples of 10

| Part No. | Mfr. Part No. | Plating | 10 | 100 | 1000 |
|---|---|---|---|---|---|
| 736501 | 08-50-0113 | Tin* | $.05 | $.04 | $.03 |
| 234923 | 08-50-0114 | Tin | .06 | .05 | .04 |
| 234931 | 08-55-0102 | 15µ" gold | .15 | .12 | .11 |
| 736595 | 08-52-0123 | Tin | .09 | .08 | .07 |
| 462969 | 08-65-0805 | Tin (cat ear) | .09 | .08 | .07 |
| 463005 | 08-65-0816 | 15µ" gold | .19 | .15 | .13 |

*Cut tape packaging

A variety of hand tools perfect for all your project designs available online. Use Web Code BAV & GBU when searching.



## .100" (2.54mm) Low Profile Male Shrouded Headers

### Straight & Right Angle Double Row

68180

- Rating: 1A (max.) @ 250VDC
- Contact resistance: 15mΩ max.
- Contact: phosphor bronze, gold plated
- Features: UL recognized CSA certified; 0.025" square post mates with sockets on 0.100" x 0.100" grid
- Use with IDC socket connectors, below

*Web Code: JAH

| Part No. | Cross Ref. No. | Pos. | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 2167939 | BHR-10-HUA | 10 | $.29 | $.25 | $.19 |
| 67812 | 7110-10SG | 10 | .59 | .49 | .39 |
| 2100304 | 7110-14SG | 14 | .59 | .49 | .39 |
| 68180 | 7110-16SG | 16 | .65 | .55 | .45 |
| 68292 | 7110-20SG | 20 | .65 | .55 | .45 |
| 68372 | 7110-26SG | 26 | .69 | .59 | .49 |
| 68583 | 7110-34SG | 34 | 1.09 | .89 | .75 |
| 2167971 | BHR-40-HUA | 40 | .49 | .45 | .39 |
| 181105 | 7110-40SG | 40 | 1.45 | 1.19 | .99 |
| 737782 | 103310-8 (R/A) | 40 | .99 | .89 | .75 |
| 2100312 | 7110-50SG | 50 | 1.25 | 1.09 | .95 |

## .100" (2.54mm) Polarized IDC Socket Connectors

### Double Row

32564

- Current rating: 1A
- Mates with 2 rows of .025" sq. or dia. posts on patterns of .100" centers (male headers, below)
- Contact material: phosphor bronze w/ 1µ" gold flash on mating area, tin plated on termination area
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use crimper P/N 73252 (see Web)
- Include strain relief

*Web Code: QAE

| Part No. | Cross Ref. No. | Contacts | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 32492 | 8000-10 | 10 | $.35 | $.29 | $.25 |
| 153948 | 8000-14 | 14 | .39 | .35 | .29 |
| 119467 | 8000-16 | 16 | .45 | .39 | .35 |
| 32522 | 8000-20 | 20 | .49 | .45 | .39 |
| 32564 | 8000-26 | 26 | .55 | .49 | .45 |
| 32644 | 8000-34 | 34 | .59 | .55 | .49 |
| 32679 | 8000-40 | 40 | .65 | .59 | .55 |
| 32708 | 8000-50 | 50 | .69 | .65 | .59 |

## OST AMP ValuePro .100" (2.54mm) Straight Male Headers

- Max current: 3A
- Operating temperature: -45°C to +105°C

*Web Code: TAM

### Single Row

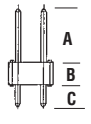
✳ Order in multiples of 10

| Part No. | Mfr. | Product No. | Pins | Size (A"xB"xC")* | Plating | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|
| 2076797 | ValuePro | SMH01 | 1 | .23 x .10 x .12 | Gold | ✳ | $.09 | $.08 |
| 2144884 | ValuePro | SMH02 | 2 | .23 x .10 x .12 | Tin | .25 | .19 | .15 |
| 108338 | ValuePro | SMH02 | 2 | .23 x .10 x .12 | Gold | .29 | .25 | .19 |
| 421489 | AMP | 103185-3 | 3 | .23 x .09 x .12 | Gold/Tin | .35 | .29 | .25 |
| 109576 | ValuePro | SMH03 | 3 | .23 x .10 x .12 | Gold | .35 | .29 | .25 |
| 117560 | ValuePro | SMH04 | 4 | .23 x .10 x .12 | Gold | .35 | .29 | .25 |
| 2120276 | OST | PHI-787/120-041 | 4 | .78 x .10 x .12 | Gold | .29 | .25 | .19 |
| 2076789 | ValuePro | SMH05 | 5 | .23 x .10 x .12 | Gold | .29 | .25 | .19 |
| 153700 | ValuePro | SMH06 | 6 | .23 x .10 x .12 | Gold | .29 | .25 | .19 |
| 153702 | ValuePro | SMH08 | 8 | .23 x .10 x .12 | Gold | .35 | .29 | .25 |
| 2076818 | ValuePro | SMH09 | 9 | .23 x .10 x .12 | Gold | ✳ | .19 | .15 |
| 103393 | ValuePro | SMH10 | 10 | .23 x .10 x .12 | Gold | .39 | .35 | .29 |

*Dimension "A" has gold plating; dimension "C" has tin plating

Single Row

Double Row




### Double Row

- 10 pins are 2 rows of 5 pins (example)

✳ Order in multiples of 10

*Web Code: QCM

| Part No. | Mfr. | Product No. | Pins | Size (A"xB"xC")* | Plating | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|
| 115027 | ValuePro | 923804DS | 4 | .23 x .10 x .12 | Gold | ✳ | $.19 | $.15 |
| 115035 | ValuePro | 923806DS | 6 | .23 x .10 x .12 | Gold | .29 | .25 | .19 |
| 15747 | ValuePro | DMH06-30 | 6 | .30 x .10 x .12 | Gold | ✳ | .12 | .09 |
| 2135312 | ValuePro | FCN-724P008-AU/W | 8 | .23 x .10 x .12 | Gold/Tin | ✳ | .12 | .07 |
| 109517 | ValuePro | 7000-2x4SG | 8 | .23 x .10 x .12 | Gold | .39 | .35 | .29 |
| 67821 | ValuePro | 923810DS | 10 | .23 x .10 x .12 | Gold/Tin | .39 | .35 | .29 |
| 203810 | ValuePro | 923812DS | 12 | .23 x .10 x .12 | Gold | .45 | .39 | .35 |
| 118456 | ValuePro | 923814DS | 14 | .23 x .10 x .12 | Gold | .55 | .49 | .45 |
| 109568 | ValuePro | 923816DS | 16 | .23 x .10 x .12 | Gold | .59 | .55 | .49 |
| 53480 | ValuePro | 923820DS | 20 | .23 x .10 x .12 | Gold | .69 | .65 | .59 |
| 203844 | ValuePro | 923824DS | 24 | .23 x .10 x .12 | Gold | .69 | .65 | .55 |
| 53495 | ValuePro | 923826DS | 26 | .23 x .10 x .12 | Gold | .69 | .65 | .55 |

RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## 50Ω/75Ω BNC Connectors and Couplers

### Jacks

★Web Code: BCJ

| Part No. | Manufacturer | Product No. | Fig. | Description | 1 | 10 | 50 |
|---|---|---|---|---|---|---|---|
| 2135646 | Bomar | SPX44202 | 1 | Jack, straight, PC mount (gold) | $.65 | $.55 | $.45 |
| 161656 | ValuePro | CH-7087D | 2 | 75Ω jack, right angle, metal, PC mount | 1.25 | 1.09 | .95 |
| 71590 | ValuePro | G1B235 | 3 | Jack, panel mount (UG-1094A)1 | 1.95 | 1.75 | 1.49 |
| 1952821 | Foxconn | KDA1001-H0 | 4 | Jack, right angle, plastic insulation, PC mount2 | .89 | .79 | .65 |

### Couplers

★Web Code: BCC

| Part No. | Manufacturer | Product No. | Fig. | Description | 1 | 10 | 50 |
|---|---|---|---|---|---|---|---|
| 71909 | ValuePro | 200-160 | 5 | Female/female coupler (UG-914) | $1.49 | $1.25 | $1.09 |
| 148224 | ValuePro | 200-165 | 6 | 50Ω coupler, jack-jack, panel mount w/ washer & nut2 | 1.49 | 1.25 | 1.09 |
| 148232 | ValuePro | 31-4803-RFX | 6 | 50Ω coupler, jack-jack, isolated, w/ washer & nut2 | 2.95 | 2.65 | 2.39 |

Additional Panel Mounting Hardware: P/N 2186030 (1) (2 nuts, 1 washer) and P/N 2186021 (2) (2 nuts, 1 washer), see Web

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

## BNC, RCA & SMA RF Adapters

★Web Code: RFS

| Part No. | Manufacturer | Product No. | Description | 1 | 10 | 50 |
|---|---|---|---|---|---|---|
| 159477 | ValuePro | CH-7820-N | SMA male to BNC female | $4.25 | $3.95 | $3.55 |
| 2185985 | Amphenol Connex | 95625 | SMA female to BNC male, right angle, 3 pcs. | 3.95 | 3.59 | 3.39 |
| 207168 | ValuePro | BJ-7072 | RCA female to BNC female | 1.75 | 1.49 | 1.25 |
| 114789 | ValuePro | BR312 | RCA female to BNC male | 1.89 | 1.65 | 1.49 |

159477

2185985

207168

114789

## SMA/SMB 50Ω Coax Cables

Fig. 1

Fig. 2

Fig. 3

**Fig. 1:** SMA male to SMA male
**Fig. 2:** SMA right angle male to SMA right angle male
**Fig. 3:** SMB plug female to SMB plug female

★Web Code: BZM

| Part No. | Cable | Fig. | Lgth (ft.) | 1 | 10 | 100 |
|---|---|---|---|---|---|---|
| 159397 | RG-58 | 1 | 6 | $5.95 | $5.49 | $4.95 |
| 169801 | RG-174 | 1 | 0.5 | 3.19 | 2.75 | 2.49 |
| 163855 | RG-174 | 1 | 1 | 3.95 | 3.59 | 3.25 |
| 153382 | RG-174 | 1 | 2 | 4.95 | 4.49 | 3.95 |
| 159451 | RG-174 | 1 | 6 | 6.95 | 6.25 | 5.59 |
| 175152 | RG-174 | 2 | 1 | 4.95 | 4.49 | 3.95 |
| 175178 | RG-174 | 3 | 1 | 4.95 | 4.49 | 3.95 |

## BNC Male Coax Cables

★Web Code: BBD

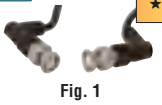


Fig. 1

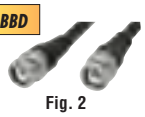


Fig. 2

### RG58/U 50Ω Network & Oscilloscope Cables

| Part No. | Mfr. P/N | Fig. | Length | 1 | 10 | 50 |
|---|---|---|---|---|---|---|
| 181308 | CRG58-1RR | 1 | 1' | $3.95 | $3.55 | $3.19 |
| 102315 | CRG58-1 | 2 | 1.5' | 3.95 | 3.55 | 3.19 |
| 256743 | CBB-224-24 | 2 | 2' | 4.95 | 4.49 | 3.95 |
| 11404 | CRG58-3 | 2 | 3' | 4.95 | 4.49 | 3.95 |
| 102331 | CRG58-6 | 2 | 6' | 4.95 | 4.49 | 3.95 |

### RG174/U 50Ω Network & Oscilloscope Cables

| Part No. | Mfr. P/N | Fig. | Length | 1 | 10 | 50 |
|---|---|---|---|---|---|---|
| 111473 | RG174U3 | 2 | 3 | $5.49 | $4.95 | $4.49 |
| 111482 | RG174U6 | 2 | 6 | 6.95 | 6.25 | 5.49 |

## Standard Double Row Barrier Terminal Blocks

### 140 Series 15A (5-40 x 3/16" BH screws)

- Insulation: molded mono block, general purpose phenolic, black, UL94V-1
- Screw material: steel with nickel over copper flash plating
- 3750-watts/terminal max.
- 16 AWG wire max.
- Size: 0.88"W x 0.41"H

★Web Code: YBM

230990

| Part No. | Mfr. P/N | Pos. | Length | 1 | 10 | 100 |
|---|---|---|---|---|---|---|
| 230990 | 4-140 | 4 | 2.16" | $1.95 | $1.85 | $1.75 |
| 231036 | 8-140 | 8 | 3.66" | 2.89 | 2.75 | 2.49 |
| 231052 | 10-140 | 10 | 4.41" | 3.95 | 3.75 | 3.49 |
| 231061 | 12-140 | 12 | 5.16" | 3.95 | 3.75 | 3.49 |
| 1775983 | 14-140 | 14 | 5.91" | 4.95 | 4.75 | 4.49 |

## .150" (3.81mm) to .197" (5.0mm) Terminal Blocks

| Part No. | Mfr. | Mfr. Part No. | Fig. | Term. | Terminal Spacing | Description | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| 2094565 | OST | OSTTJ0231530 | 1 | 2 | 0.150"/3.81mm | R/A screw | $.59 | $.55 | $.49 |
| 160785 | Dinkle | EK500V-02P | 2 | 2 | 0.197"/5.0mm | Top screw | .65 | .59 | .49 |
| 164794 | OST | OSTTH020160 | 3 | 2 | 0.197"/5.0mm | Top screw | .55 | .45 | .39 |

Fig. 1

Fig. 2

Fig. 3

## Terminals, Splices and Quick Connect/Disconnect

★Web Code: TSQ

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

Fig. 9

### Ring Tongue Terminals

✳ Order in multiples of 10

| Part No. | Mfr. | Product No. | Fig. | Insul. | Stud Size | AWG | Color | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| 302674 | AMP | 31890 | 1 | Plastic | #8 | 22-16 | Red ✳ | $.19 | $.15 | |
| 844289 | AMP | 34107 | 2 | Uninsul. | #6 | 22-16 | — | .29 | .25 | .19 |
| 844377 | AMP | 34111 | 2 | Uninsul. | #8 | 22-16 | — | .29 | .25 | .19 |

### Spade Tongue Terminals

✳ Order in multiples of 10

| Part No. | Mfr. | Product No. | Fig. | Insul. | Stud Size | AWG | Color | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| 302877 | AMP | 34541 | 3 | Nylon | #6 | 22-16 | Red | $.25 | $.22 | $.17 |
| 103588 | ValuePro | SVS1-3.7 | 3 | Vinyl | #6 | 22-16 | Red ✳ | .17 | .15 | |
| 2160631 | ValuePro | 323127VP | 4 | Uninsul. | #6 | 22-16 | — ✳ | .15 | .13 | |

### Butt Disconnect Splices

✳ Order in multiples of 10

| Part No. | Mfr. | Product No. | Fig. | Insul. | Type | AWG | Color | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| 491305 | Molex | 19164-0013 | 5 | NiAC | Butt | 22-18 | Red | $.39 | $.35 | $.29 |
| 503062 | Molex | 19154-0004 | 6 | PVC | Butt | 18-22 | Red ✳ | .19 | .15 | |
| 303183 | AMP | 320562 | 6 | Nylon | Butt | 16-14 | Blue | .59 | .55 | .49 |

### Quick Connect/Disconnect Female Terminals

✳ Order in multiples of 10

| Part No. | Mfr. | Product No. | Fig. | Insul. | Size (ins.) | AWG | Color | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| 303280 | AMP | 640903-1 | 7 | Nylon | .250 x .032 | 22-18 | Red | $.25 | $.22 | $.19 |
| 489627 | Molex | 19003-0001* | 8 | Nylon | .250 x .032 | 22-18 | Red ✳ | .19 | .15 | |
| 489475 | Molex | 19002-0001 | 9 | Nylon | .250 x .032 | 22-18 | Red | .35 | .29 | .25 |

*Translucent

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

Mountain Switch | C&K | JAMECO ValuePro | Honeywell | Alcoswitch | HIGHLY | Judco | GC

## Miniature Basic Switches

★Web Code: UEM

- Common; normally open; normally closed
- Size: 1.10"L x 0.40"W x 0.63"H

**1945268:** Nomally open (NO) only

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

| Part No. | Manufacturer | Product No. | Fig. | Contact Form | Contact Rating | Actuator Type | Service Life (Mech./Elec.) | Terminal Type | Pricing 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2076244 | Honeywell | V3-23-D8 | 1 | SPST-NO | 5A @ 125VAC | Pin plunger | 50M/300k | 0.183" quick connect | $1.75 | $1.49 | $1.25 |
| 2178937 | ValuePro | 1033013 | 1 | SPST-NO | 15A @ 250VAC | Pin plunger | 10M/100k | 0.250" quick connect | 1.95 | 1.75 | 1.49 |
| 483284 | Cherry | D44CR1RD | 2 | SPDT | 10A @ 125VAC/250VAC | Hinge lever (1.24"L) | 6k | 0.187" quick connect | 3.25 | 2.95 | 2.65 |
| 2117333 | ValuePro | VM-05S-03D0-Z | 3 | SPDT-NC | 5A @ 125VAC/250VAC | Long lever (2.0"L) | 50M/300k | 0.185" quick connect | 1.95 | 1.75 | 1.49 |
| 2178929 | ValuePro | M8-1P1DS1 | 4 | SPDT-NC | 5A @ 250VAC | Short lever (0.6"L) | 50M/300k | 0.250" quick connect | 1.49 | 1.25 | 1.09 |
| 159572 | Highly Electric | VS10N051C | 5 | SPDT-NC | 10A @ 125VAC/250VAC | Hinge roller (0.60"L) | 10M/100k | 0.250" quick connect | 2.95 | 2.69 | 2.49 |

## Pushbutton Switches

- Rugged, spring-loaded travel
- High quality, long life and low-cost
- Mutiple applications

★Web Code: UBU

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

| Part No. | Manufacturer | Product No. | Fig. | Pins | Contact Form ( ) Momentary | Contact Rating | Mounting Hole Dia. | Dimension (L" x W" x D") | Lead Spacing A" | B" | Terminal Type | Button Color | Pricing 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22200R | Judco | J1881R | 1 | 2* | SPST on-off, Alt† | 2A @ 14VDC | .375" | .65 x .52 x .40 | .25 | — | 5" Pigtail | White | $1.95 | $1.75 | $1.49 |
| 164639R | ValuePro | MS3120RR | 2 | 2 | SPST off-(on)1 | .5A @ 125VAC | .295" | .31 (D) x 1.1 (T) | .175 | — | Solder | Red | 1.95 | 1.75 | 1.49 |
| 164582 | Mountain Switch | DS016B | 3 | 2 | SPST off-(on)2 | 1A @ 125VAC | .469" | .46 (D) x .88 (T) | .22 | — | Solder | Black | 3.69 | 3.25 | 2.95 |
| 28063 | ValuePro | PB126R | 4 | 3 | SPDT on-(on)3 | 3A @ 120VAC | .250" | .52 x .28 x .38 | — | .185 | Solder lugs | Red | 3.75 | 3.49 | 3.15 |
| 2181407 | ValuePro | 01-690CR | 5 | 6 | DPDT off-on | 4A @ 125VAC | .472" | 1.7 x .71 x .98 | .35 | — | Solder lugs | Silver | 3.95 | 3.59 | 3.19 |
| 2184376 | ValuePro | SF17027F-0302-21R-LR | 6 | 9 | 3PDT | 1A @ 500VAC | .472 | 2.0 x .77 x .67 | .13 | .14 | Solder lugs | White | 6.95 | 5.95 | 5.25 |
| 2181415 | ValuePro | 01-690DB-RHR | 6 | 9 | 3PDT off-on | 4A @ 125VAC | .472 | 1.7 x .68 x .77 | .21 | .19 | Solder lugs | Silver | 4.49 | 3.95 | 3.59 |

*Lead wires † Alt = alternate action Additional panel mounting hardware: 1 **2182688**; 2 **2182733**, 3 **2182477**, see Web

## Miniature Toggle Switches

- Mounting hole dia.: 1/4"
- Thread: 1/4-40 UNS-2B
- Waterproof boot seals (see Web)

**Includes:** Panel mounting hardware

Fig. 1

Fig. 2

Fig. 3

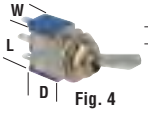


Fig. 4

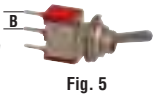


Fig. 5

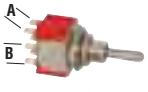


Fig. 6

Fig. 7

Fig. 8

★Web Code: PAJ

| Part No. | Mfr. | Product No. | Fig. | Pins | Contact Form ( ) Momentary | Contact Rating (A @ VAC) | Dimensions (L" x W" x D") | Lead Spacing A" | B" | Terminal Type | Lever Type | Pricing 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2135478 | JVP | T100T1B4A2R | 1 | 2 | SPST on-off | 5 @ 120 & 2 @ 250 | .50 x .28 x .35 | — | 0.190 | PC straight | Round | $1.49 | $1.39 | $1.25 |
| 76523 | JVP | JMT1131 | 2 | 2 | SPST on-off | 5 @ 125 & 2 @ 250 | .52 x .32 x .38 | — | 0.185 | Solder lugs | Round | 1.49 | 1.39 | 1.25 |
| 2159584 | ALC | AE101SDIV30B | 3 | 3 | SPDT on-on | 5 @ 120 & 2 @ 250 | .50 x .26 x .40 | — | 0.185 | PC straight | Round | 1.95 | 1.65 | 1.45 |
| 317295 | JVP | 1MS1T6B11M1QE1 | 4 | 3 | SPDT on-on | 5 @ 120 & 2 @ 250 | .50 x .27 x .35 | — | 0.185 | Solder lugs | Flat | 1.95 | 1.75 | 1.49 |
| 2181167 | C&K | U18SH3CGE1 | 2 | 3 | SPDT on-(on) | 5 @ 120 & 2 @ 250 | .50 x .27 x .35 | — | 0.185 | Solder lugs | Round | 1.75 | 1.55 | 1.35 |
| 26315 | JVP | MPC1211 | 5 | 3 | SPDT on-off-on | 5 @ 125 & 2 @ 250 | .52 x .32 x .37 | — | 0.185 | PC straight | Round | 1.65 | 1.49 | 1.35 |
| 21952 | JVP | GTS1141 | 6 | 6 | DPDT on-off-on | 5 @ 120 & 3 @ 250 | .52 x .52 x .38 | 0.20 | 0.185 | Solder lugs | Flat | 1.95 | 1.75 | 1.49 |
| 22841 | JVP | GTS164BLK1 | 7 | 6 | DPDT on-off-on | 5 @ 125 & 3 @ 250 | .52 x .52 x .38 | 0.20 | 0.185 | Solder lugs | Flat | 1.75 | 1.49 | 1.25 |
| 2182477 | JVP | 1/4-40HDWR | 8 | — | Additional 1/4-40 UNS threaded panel mounting hardware (4 pcs.) for above switches indicated with 1 | | | | | | | .79 | .69 | .59 |

## Standard Appliance Panel Mount Rocker Switches

- Easy to install snap-in design
- Multiple actuator and termination styles
- Various colors and illuminated versions available

★Web Code: VBU

2172738

316048

2182338

316072

617473

316111

| Part No. | Mfr. | Product No. | Pins | Contact Form ( ) Momentary | Contact Rating (A @ VAC) | Dimemsions (L" x W" x D") | Lead Space A" | B" | Rocker Color | Terminal Type | Pricing 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2172738 | JVP | 1901 | 2 | SPST on-off | 4 @ 125 & 6 @ 250 | .74 x .26 x .61 | .37 | — | Black | PCB solder | $1.49 | $1.19 | $.95 |
| 316048 | JVP | R13-66B-G-02 | 3 | SPST on-off | 9 @ 125 & 6 @ 250 | .83 x .59 x .47 | .31 | .31 | Green illum. | .187" quick connect | 1.35 | 1.25 | 1.19 |
| 2182338 | C&K | CM101J12S205QA | 3 | SPDT on-on | 16 @ 125 & 10 @ 250 | 1.07 x .42 x .63 | .43 | .43 | Black | .250" quick connect | 1.95 | 1.75 | 1.49 |
| 316072 | JVP | R13-66D-02 | 3 | SPDT on-off-on | 16 @ 125 & 10 @ 250 | .83 x .59 x .47 | .31 | .31 | Black | .187" quick connect | .99 | .89 | .79 |
| 617473 | GCE | 35-695 | 3 | SPDT (on)-off-(on) | 16 @ 125 & 16 @ 250 | .93 x .43 x .62 | .34 | .56 | Black | .250" quick connect | 4.49 | 3.95 | 3.59 |
| 316111 | JVP | R13-73A2-B-02R | 4 | DPST on-off | 9 @ 125 & 6 @ 250 | .83 x .59 x .68 | .20 | .34 | Black | .187" quick connect | 1.49 | 1.35 | 1.19 |

* ALC = Alcoswitch | C&K = C&K Switches | GCE = GC Electronics | JVP = Jameco ValuePro

R RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Round Keylock Switches

- Used in computer and other security systems
- Mounting hole = 0.75" (except P/N 106650 = 0.5")
- Key removable from 2 positions • Two keys

★Web Code: RAN

**105832:** All keys are different;
**196649:** All keys are alike **Includes:** Mounting nut
**2167701:** Key removable in 1 position, .577" mounting hole; DPDT
**2167710:** Key removable in 4 positions, .732" mounting hole; SP4T
**2172025:** Key removable in 4 positions, .413" mounting hole; SPDT

106650

105832/196649

2167701

2167710

| Part No. | *Mfr. | Product No. | No. Flat, Dia. | Length | Terminal | Voltage/Current | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|
| 106650 | JVP | KS4B℞ | 2, 0.21" | 0.55" | Barrel | 125VAC/3A | $5.49 | $4.95 | $4.49 |
| 105832 | JVP | KS3B℞ | 2, 0.66" | 1.48" | 0.25" quick connect | 125VAC/6A | 5.49 | 4.95 | 4.49 |
| 196649 | JVP | 3313E-M℞ | 2, 0.66" | 1.48" | 0.25" quick connect | 125VAC/6A | 5.95 | 5.49 | 4.95 |
| 2167701 | JVP | 31-295-025D | 1, 0.574" | 1.42" | 0.126" solder, quick conn. | 250VAC/5A | 4.95 | 4.49 | 3.95 |
| 2167710 | LOR | KC77362 | 4, 1.1" | 1.42" | Solder | 110VAC/.35A | 4.95 | 4.49 | 3.95 |
| 2172025 | JVP | S116-1 | 1, 0.42" | 1.20" | Solder | 125VAC/1A | 4.95 | 4.49 | 3.95 |

## Tactile Switches

- Bounce time: 10 msec.
- SPST momentary ON
- Lead type: PC
- Contact resistance: 100mΩ

★Web Code: QBF

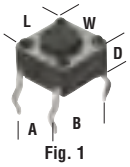


Fig. 1

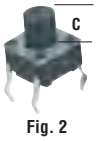


Fig. 2

Fig. 3

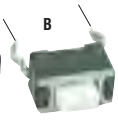


Fig. 4

| Part No. | *Mfr. | Product No. | Fig. | Pins | Contact Rating (mA @ VDC) | Dimensions (ins.) L | W | D | C | Lead Spacing A" | B" | Button Color | Pricing 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 119011 | JVP | KTIIBICM℞ | 1 | 4 | 20 @ 15 | .24 | .24 | .15 | .03 | .17 | .25 | Black | $.35 | $.29 | $.25 |
| 149948 | JVP | KT11P4CM | 2 | 4 | 20 @ 15 | .24 | .24 | .15 | .13 | .17 | .25 | Black | .35 | .29 | .25 |
| 122973 | JVP | DTS1212℞ | 3 | 4 | 20 @ 15 | .47 | .47 | .18 | — | .20 | .50 | Black | .39 | .35 | .29 |
| 2162791 | ALP | SKHLAAA010 | 4 | 2 | 50 @ 12 | .24 | .14 | .14 | .06 | — | .26 | Black | .35 | .29 | .25 |
| 155249 | JVP | KRS-3550-BK℞ | 4 | 2 | 50 @ 12 | .24 | .14 | .15 | — | — | .27 | Brown | .39 | .35 | .29 |
| 155256 | JVP | KRS-3550-WH | 4 | 2 | 50 @ 12 | .24 | .14 | .15 | .03 | — | .26 | White | .39 | .35 | .29 |

* ALP = ALPS Electric | JVP = Jameco ValuePro | LOR = Lorlin Electronics

## 16-Button Indoor/Outdoor Keypads

196171

- 9-pin .100" headers
- Compatible with MOS, TTL and DTL (10Ω max.)
- Contact rating: 24VDC @ 10mA resistive
- Fully sealed snap-dome contact
- Life test: 3,000,000 cycles per key
- Size (housing): 4.7"W x 1.7"H x 0.4"T
- Recommended connector: P/N 103191 header & 100766 pin, see Web

| Part No. | Description | 1 | 10 | 100 |
|---|---|---|---|---|
| 196171 | 2x8 matrix keypad℞ .... | $14.95 | $13.49 | $12.49 |
| 152063 | 4x4 matrix keypad℞ ..... | 16.95 | 15.49 | 13.95 |

## 16-Button Numeric Keypads

169245

- Contact resis.: 200Ω max.
- 8-pin solder pad
- Contact rating: 24VDC @ 20mA
- Life test: 1,000,000 life cycles per key
- 8-pin male header, use for P/N 153702 (straight) or P/N 153728 (right angle)

| Part No. | Size (L" xW" xH") | 1 | 10 | 100 |
|---|---|---|---|---|
| 2131055 | 2.5 x 2.6 x 0.4 ..... | $5.95 | $5.49 | $4.95 |
| 169245 | 3.0 x 2.8 x 0.6℞ ..... | 9.95 | 8.95 | 7.95 |

## Flex Sensor

- Max. resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

| Part No. | Nominal Res. | Length | 1 | 10 |
|---|---|---|---|---|
| 150551 | 10kΩ℞ | 4.5 ..... | $12.95 | $11.49 |

## Small PC Mount Relays

SIEMENS HAMLIN FUJITSU

Designed for the appliance and temperature control markets, these relays are also well suited for automotive load management.

- Mechanical life: 10 million operations
- Electrical life: 100,000 operations
- Dielectric strength: 1500$V_{RMS}$ (between contact and coil)

★Web Code: SAV

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

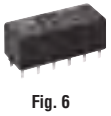
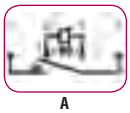


Fig. 6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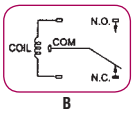
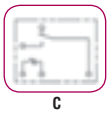


B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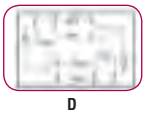
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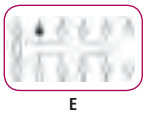
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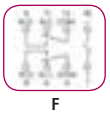

F

| Part No. | Manufacturer | Product No. | Potter & Brumfield Cross Reference | Fig. | Contact Form | Coil Voltage | Coil (Ohms) | Contact Current | Contact Voltage | Pins | Dimensions (L" x W" x H") | Pricing 1 | 10 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1860070 | Hamlin | HE3621A0500℞* | — | 1A | SPST-NO | 5VDC | 500 | 1A | 200VDC | 4 | .75 x .19 x .30 | $1.75 | $1.55 | $1.25 |
| 2077378 | Fujitsu | FBR161NED006-WB | — | 2B | SPST | 6VDC | 100 | 10A | 120VAC/30VDC | 5 | .85 x .63 x .63 | 1.49 | 1.25 | 1.09 |
| 843201 | Aromat/Panasonic | JW1FSN-DC24℞ | RTB14024F | 3C | SPDT | 24VDC | 1100 | 10A/10A | 250VAC/30VDC | 5 | 1.11 x .49 x .78 | 1.95 | 1.75 | 1.49 |
| 2135726 | NEC | EP2-3NIST** | — | 4D | DPST | 12VDC | 225 | 25A | 30VDC (max.) | 10 | .94 x .64 x .63 | 3.95 | 3.59 | 3.39 |
| 2133528 | Siemens | V23042-C2108-B101 | — | 5E | DPDT | 3VDC | 90 | 5A | 220VAC/250VDC | 8 | .80 x .40 x .42 | 1.49 | 1.35 | 1.19 |
| 2133499 | SDS/Relais | S3-12V | — | 6F | 4PST | 12VDC | 720 | 4A | 250VAC/30VDC | 12 | 1.11 x .48 x .41 | 3.49 | 3.19 | 2.75 |

*SIP package **Automotive, dual relay, separate type

## General Purpose Blade and Octal Relays

- UL/CSA approved
- Industry standard termination for quick installation
- Wide range of coil voltages for industrial and commercial applications

Fig. 1

Fig. 2

Fig. 3

Fig. 4

P&B OMRON

★Web Code: ACF

| Part No. | *Mfr. | Product No. | Fig. | Contact Form | Coil Voltage | Contact Rating | Coil Resis. (Ω) | Coil Current (mA) | Mating Socket* Standard | DIN Rail | Pricing 1 | 10 | 50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2093079 | Omron | LY2F-DC12℞ | 1 | DPDT | 12VDC | 10A @ 24VDC; 10A @ 110VAC | 160 | 75 | PT08 | 175531 | $5.95 | $5.39 | $4.25 |
| 282378 | P&B | KRPA-11DG-12℞ | 2 | DPDT1 | 12VDC | 10A @ 240VAC | 120 | 100 | 282132 | — | 15.95 | 14.95 | 13.95 |
| 172719 | ValuePro | LB2-12DS-R℞ | 3 | DPDT | 12VDC | 12A @ 30VDC; 12A @ 240VAC | 160 | 75 | 175531 | 282191 | 6.49 | 5.95 | 5.49 |
| 282255 | P&B | K10P-11D15-12℞ | 4 | DPDT | 12VDC | 15A @ 30VDC; 15A @ 120VAC | 160 | 75 | 282191 | 282191 | 12.95 | 11.95 | 10.95 |
| 175602 | ValuePro | LB4H-24DS-R℞ | 3 | 4PDT | 24VDC | 5A @ 30VDC; 5A @ 240VAC | 650 | 37 | 175557 | 175557 | 5.49 | 4.95 | 4.49 |

* For sockets see Web 1 = Silver-cadmium oxide, no lamp

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## 3VDC – 24VDC Motors

★Web Code: FBN

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig.7

Fig. 8

Fig. 9

| Part No. | Manufacturer | Product No. | Fig. | Nominal Voltage (VDC) | Voltage Range (VDC) | @ Maximum Efficiency Speed (RPM) | @ Maximum Efficiency Current (Amps) | @ Maximum Efficiency Torque (g-cm) | Efficiency | Terminal Type | Shaft Dia. (in.) | Shaft Length (in.) | Size Dia. x Depth (in.) | Pricing 1 | Pricing 10 | Pricing 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2158442 | Nichibo | RF-500TB-18280-R | 1 | 3 | 1-3 | 2104 | 0.17 | 13.4 | 60.0 | 0.07"/solder | 0.078 | 0.34 | 1.25 x 0.75 | $2.25 | $1.95 | $1.75 |
| 154923 | Jency Motor | ST-130-22770 | 2 | 3 | 1.5-3 | 13200 | 0.95 | 10.3 | 40.0 | 0.09"/solder | 0.08 | 0.37 | 0.79 x 1.13 | 2.49 | 2.25 | 1.95 |
| 211246 | ReliaPro | RC-260RA-2670 | 3 | 4.5 | 3-4.5 | 15290 | 1.430 | 21.8 | 53.0 | 0.11"/solder | 0.08 | 0.28 | 0.93 x 1.06 | 2.75 | 2.49 | 2.25 |
| 2173044 | Nichibo | RF-500TB-12560 | 4 | 6 | 6-12 | 2100 | 0.08 | 11 | 58.0 | 0.08"/solder | 0.078 | 0.342 | 1.259 x 0.767 | 3.95 | 3.49 | 2.95 |
| 238473 | Mabuchi Motor | RF-370CA-15370 | 5 | 12 | 3-12 | 4840 | 0.17 | 187 | 75.0 | 0.08"/solder | 0.078 | 0.346 | 0.960 x 1.213 | 3.49 | 2.95 | 2.75 |
| 2144673 | Mabuchi Motor | RS555PH-23300 | 6 | 12 | 12-30 | 5050 | 0.36 | 380.3 | — | 0.19"/quick conn. | 0.125 | 0.50 | 1.44 x 2.625 | 3.95 | 3.49 | 2.95 |
| 1810099 | Mabuchi Motor | FK-260SA (14280) | 7 | 12 | 12-24 | 8600 | 0.063 | 14.8 | 55.0 | 0.08"/solder | 0.08 | 0.43 | 0.96 x 1.06 | 2.75 | 2.49 | 2.25 |
| 232005 | ReliaPro | UC-280S-19160R | 8 | 12 | 6-12 | 9000 | 0.57 | 46.6 | 63.4 | 0.08"/solder | 0.078 | 0.47 | 0.944 x 1.20 | 3.49 | 2.95 | 2.75 |
| 2081895 | Mabuchi Motor | FC-280ST-18180* | 8 | 12 | 8-15 | 9700 | 0.16 | 54.3 | 59.08 | Wire/push-in | 0.08 | 0.45 | 0.95 x 1.32 | 1.95 | 1.75 | 1.49 |
| 232022 | ReliaPro | MD5-1885R | 6 | 12 | 6-18 | 9820 | 0.74 | 53.5 | 60.7 | 0.11"/solder | 0.091 | 0.622 | 1.082 x 1.279 | 3.49 | 2.95 | 2.75 |
| 2188810 | Nichibo | LS5FN-16120W-R | 9 | 24 | 1-28 | 8244 | 0.41 | 81.7 | 70.0 | 0.11"/solder | 0.09 | 0.61 | 1.14 x 1.47 | 3.49 | 2.95 | 2.65 |
| 2192421 | Nichibo | HP5BFN-2670-R† | 6 | 24 | 1.5-28 | 9346 | 1.05 | 193 | 74.0 | 0.15"/solder | 0.12 | 0.17 | 0.70 x 1.90 | 6.95 | 5.95 | 4.95 |

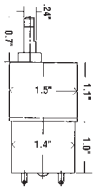
*Reverse † Built-in varistor

## 12VDC Reversible Gear Head Motors

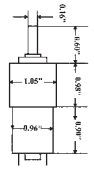
- Solder-type terminal • High torque construction • Dielectric strength: 300VDC • Insulation resistance: 10MΩ
- Oil bearing design for long service life

★Web Code: KBB

### HN27GD & GH35GM Series



155012

167039



| Part No. | Cross Ref. No. | Operating Range (VDC) | @ Maximum Efficiency Speed (RPM) | @ Maximum Efficiency Current (mA) | @ Maximum Efficiency Torque (g-cm) | Gear Ratio | Gear Case Size Dia. x Length (in.) | Motor Size Dia. x Depth (in.) | Shaft Size Dia. x Length (in.) | Pricing 1 | Pricing 5 | Pricing 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 155012 | GH12-1926R | 4.5 – 12 | 2 | 250 | 6000 | 3000:1 | 1.4 x 0.9 | 1.3 x 1.0 | .23 x .90 | $24.95 | $22.49 | $19.95 |
| 155821 | GH12-1830Y-PR | 4.5 – 12 | 4.5 | 220 | 4500 | 1000:1 | 1.4 x 0.9 | 1.3 x 1.0 | .23 x .90 | 23.95 | 21.95 | 18.95 |
| 167039 | GH12-0953YR | 4.5 – 24 | 9 | 90 | 1200 | 188:1 | 1.1 x 1.0 | 1.0 x 0.9 | .16 x .60 | 18.95 | 16.95 | 15.25 |
| 155839 | GH12-1641T-LR | 3.0 – 12 | 20 | 250 | 3000 | 270:1 | 1.4 x 0.8 | 1.3 x 1.0 | .23 x .90 | 25.95 | 22.95 | 19.95 |
| 167047 | GH12-1828YR | 4.5 – 24 | 31 | 195 | 1300 | 90:1 | 1.1 x 0.8 | 1.1 x 1.3 | .16 x .60 | 23.95 | 21.95 | 19.95 |
| 249480 | GH12-1213Y7-0 | 4.5 – 24 | 90 | 51 | 460 | 70:1 | 1.1 x 0.6 | 1.0 x 0.9 | .16 x .60 | 19.95 | 18.95 | 17.95 |

## 1.3VDC & 3VDC Vibrating Motors

- Typical applications: cellular phones, pagers and toys

★Web Code: NBC

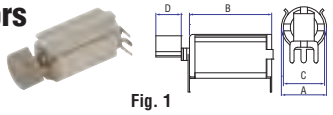


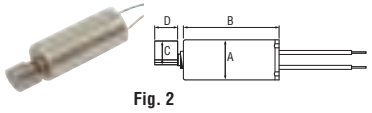
Fig. 1


Fig. 2

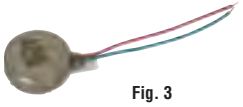



Fig. 3

| Part No. | Cross Ref. No. | Fig. | Operating Voltage (VDC @ mA) | Operating Range (VDC) | Rated RPM @ VDC | Lead Length (in.) | Motor Size (A x B) (Dia." x Depth") | Shaft Size (C x D) (Dia." x Length") | Pricing 1 | Pricing 10 | Pricing 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 256322 | 6ZK211R | 1 | 1.3 @ 80 | 0.80 - 1.60 | 8500 @ 1.3 | PC terminal | 0.27 x 0.48 | 0.11 x 0.11 | $2.75 | $2.49 | $2.25 |
| 256365 | 7ZK692R | 2 | 3.0 @ 60 | 2.40 - 3.00 | 6500 @ 3.0 | 4.7 | 0.28 x 0.66 | 0.18 x 0.22 | 3.95 | 3.49 | 2.95 |
| 256382 | 7ZK681R | 2 | 3.0 @ 60 | 2.40 - 3.60 | 7500 @ 3.0 | 1.1 | 0.28 x 0.66 | 0.12 x 0.16 | 3.95 | 3.49 | 2.95 |
| 256314 | 6ZK053R | 2 | 3.0 @ 75 | 1.60 - 3.60 | 8500 @ 3.0 | 1.0 | 0.23 x 0.39 | 0.10 x 0.10 | 3.25 | 2.95 | 2.65 |
| 256331 | 6ZK261R | 1 | 3.0 @ 75 | 2.40 - 3.00 | 8500 @ 3.0 | PC terminal | 0.27 x 0.48 | 0.11 x 0.11 | 3.25 | 2.95 | 2.65 |
| 2189476 | C1034B98FRR | 3 | 3.0 @ 80 | 2.50 - 4.00 | 9000 @ 3.0 | 1.0 | 0.39 x 0.13 | No shaft | 3.49 | 3.25 | 2.95 |

## 4VDC to 24VDC Bipolar & Unipolar Stepper Motors

Jameco offers the industry's widest variety of off-the-shelf two-phase bipolar and four-phase unipolar stepper motors for your precision applications. Be sure to check out the wide selection of 2 to 24VDC models below.

- Ball bearings
- 18" lead wires
- Dielectric strength: 500V, 50Hz/minute
- Ambient temp.: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998 (see Web) for shaft coupler

Fig. 1

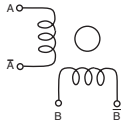
Fig. 2

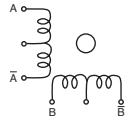
Fig. 3

Fig. 4

Fig. 5

Fig. 6



Bipolar (2-phase)


Unipolar (4-phase)

★Web Code: UBN

| Part No. | Product No. | Fig. | Drive System | Rated Voltage (VDC) | Step Angle (°5%) | Phase Resis. (Ω) | Curr. (mA) | Phase Inductance (mH) | Detent Torque (g-cm) | Holding Torque (g-cm) | Mounting Hole Space (in.) | Mounting Holes (in.) | Shaft Dia. (in.) | Shaft Length (in.) | Motor Dia. (in.) | Motor Depth (in.) | Wt. (lbs.) | Pricing 1 | Pricing 5 | Pricing 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 237631 | 57BYGH803 | 1 | Unipolar | 6.3 | 1.8 | 4.2 | 1500 | — | — | 14276 | 1.86 | 0.20 | 0.25 | 0.83 | 2.24 | 2.99 | 2.43 | $49.95 | $44.95 | $39.95 |
| 238538 | 42BYGH404R | 2 | Unipolar | 12 | 1.8 | 30 | 400 | 25 | 250 | 3200 | 1.22 | 0.10 | 0.20 | 0.95 | 1.67 | 1.89 | 0.60 | 21.95 | 19.95 | 17.95 |
| 162027 | 57BYG084R | 3 | Unipolar | 12 | 1.8 | 20 | 600 | 22 | 725 | 6000 | 2.65 | 0.20 | 0.25 | 1.00 | 2.20 | 2.00 | 1.30 | 35.95 | 32.25 | 28.95 |
| 238115 | 35BY48B08 | 4 | Unipolar | 24 | 7.5 | 75 | 320 | 38 | 65 | 270 | 1.65 | 0.13 | 0.08 | 0.35 | 1.38 | 0.59 | 0.15 | 8.95 | 7.95 | 6.95 |
| 2120479 | RDS3000 | 5 | Bipolar | 4 | 1.8 | 4 | 1000 | 10 | — | 3600 | 1.21 | 0.09 | 0.195 | 0.312 | 1.67 | 1.62 | 0.40 | 19.95 | 17.95 | 15.95 |
| 237490 | 39BYG001R | 6 | Bipolar | 5 | 1.8 | 5 | 1000 | — | 150 | 1800 | 1.22 | 0.10 | 0.20 | 0.91 | 1.54 | 1.34 | 0.44 | 21.95 | 19.95 | 17.95 |

R RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Lithium, NiCd and NiMH Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

### *Lithium – Non-rechargeable*

**Coin Cell**

*Web Code: LBT

| Part No. | Product No. | Mfr. | Fig. | Size | Volts | mAh | Dimensions | 1 | 10 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|
| 14162 | CR2032 | ReliaPro | 1 | CR2032 | 3 | 180 | 0.79"Dia. x 0.13"Thick | $1.09 | $.99 | $.85 |
| 11789 | CR2325 | ReliaPro | 1 | CR2325 | 3 | 165 | 0.91"Dia. x 0.13"Thick | 1.79 | 1.59 | 1.45 |

**Pressure Fit**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 240258 | CR123A | Evergreen | 2 | CR123A | 3 | 1300 | 1.36"L x 0.65"Dia. | $2.75 | $2.49 | $2.25 |

**Axial Leads**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 33371 | TL-5101P | Tadiran | 3 | 1/2 AA | 3.6 | 950 | 0.93"L x 0.56"Dia. | $6.25 | $5.65 | $4.95 |
| 263898 | ER14250 | ReliaPro | 3 | 1/2 AA | 3.6 | 1000 | 1.00"L x 0.55"Dia. | 4.75 | 4.25 | 3.85 |
| 33398 | TL-5104/P | Tadiran | 4 | AA | 3.6 | 2100 | 1.88"L x 0.56"Dia. | 6.95 | 6.25 | 5.65 |

### *NiCd – Rechargeable – Pressure Fit*

*Web Code: GCF

| Part No. | Product No. | Mfr. | Fig. | Size | Volts | mAh | Dimensions | 1 | 10 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|
| 261657 | AA-700-CT | ReliaPro | 5 | AA | 1.2 | 700 | 1.90"L x 0.55"Dia. | $1.69 | $1.49 | $1.35 |
| 244515 | AA-1000-CT | ReliaPro | 5 | AA | 1.2 | 1000 | 1.90"L x 0.55"Dia. | 2.75 | 2.49 | 2.25 |
| 244574 | SC-1500 | ReliaPro | 6 | Sub-C | 1.5 | 1500 | 1.70"L x 0.89"Dia. | 2.95 | 2.59 | 2.39 |

### *NiMH – Rechargeable – Pressure Fit*

*Web Code: GCF

| Part No. | Product No. | Mfr. | Fig. | Size | Volts | mAh | Dimensions | 1 | 10 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|
| 231095 | 10405 | Tenergy | 7 | AAA | 1.2 | 1000 | 1.70"L x 0.40"Dia. | $3.45 | $3.09 | $2.79 |
| 231087 | AA-1800NM | Dantona | 5 | AA | 1.2 | 1800 | 1.90"L x 0.55"Dia. | 3.95 | 3.55 | 3.19 |
| 2162724 | AA2500APZ | Powerizer | 5 | AA | 1.2 | 2500 | 1.90"L x 0.55"Dia. | 2.95 | 2.75 | 2.49 |
| 2127777 | AA-2500CT | Tenergy | 5 | AA | 1.2 | 2500 | 1.90"L x 0.55"Dia. | 3.95 | 3.55 | 3.19 |
| 244620 | 10005 | Tenergy | 8 | 9V | 8.4 | 200 | 1.94"L x 0.65"Dia. | 9.75 | 8.75 | 7.95 |

## 12V Lithium-Ion Rechargeable Battery Pack

High-powered, ultra-compact, covert battery pack with charger. Provides the same power as larger batteries at a fraction of the size and weight.

- Charging adapter included
- On/Off switch
- LED indicators
- 18" power cord
- 4500 mAh
- Input: 110-230VAC 50/60Hz
- Output: 12.6VDC, 350mA
- Connection: 2.1mm female output, 2.1mm male input
- Size: 3.0"L x 2.0"W x 0.75"H
- Weight: 0.58 lbs.

*Web Code: LII

| Part No. | Description | 1 | 10 |
|---|---|---|---|
| 2129351 | LBP-124500 | $54.95 | $49.95 |

## Lead Acid Batteries

*Web Code: LBR

- Use with UPS Backup Systems, Security Fire Alarms, Wheel Chairs, Scooters
- Sealed • UL approved • Rechargeable
- One-year manufacturer warranty

2151996

264014

317024

264057

264065

264073

| Part No. | Mfr. Part No. | Nominal Voltage | Amp-Hrs. | Cross Reference: Panasonic | Cross Reference: YUASA | Cross Reference: Eagle Picher | Cross Reference: Tempest | Terminal Size | Size (L" x W" x H") | Wt. (lbs.) | Pricing: 1 | Pricing: 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2151996 | TY-6-1.2 | 6 | 1.2 | — | — | — | — | Quick connect 0.187" | 3.8 x 1.0 x 2.1 | 0.7 | $8.95 | $7.95 |
| 264014 | TY-6-4.5 | 6 | 4.5 | LCR6VP | NP4-6 | CF16V4 | TR-4-6 | Quick connect 0.187" | 2.8 x 1.9 x 4.0 | 1.9 | 11.95 | 10.95 |
| 317024 | LA-TY-6-12 | 6 | 12.0 | — | — | — | — | Quick connect 0.187" | 5.9 x 1.9 x 3.7 | 4.6 | 19.95 | 17.95 |
| 264049 | TY-12-5 | 12 | 5.0 | — | — | — | — | Quick connect 0.187" | 3.5 x 2.7 x 3.9 | 3.6 | 22.95 | 20.65 |
| 264057 | TY-12-7.5 | 12 | 7.5 | LCR12V7.2BP | NP712 | CFM12V65 | TR7.5-12 | Quick connect 0.187" | 5.9 x 2.6 x 3.7 | 5.6 | 24.95 | 22.49 |
| 264065 | TY-12-12 | 12 | 12.0 | PS12120 | — | CFM12V12 | TR12-12 | Quick connect 0.187" | 5.9 x 3.9 x 3.7 | 9.0 | 39.95 | 35.95 |
| 264073 | TY-12-18 | 12 | 18.0 | LCR12V17BP | NPG18-12 | CF12V18 | TR18-12 | Quick connect 0.472" | 7.1 x 3.0 x 6.6 | 13.3 | 49.95 | 44.95 |

## Battery Holders

*Web Code: UAB

Eliminate battery mounting problems in portable DC power applications and products. These holders are made from special materials that maintain retention properties longer than conventional holders. They can come with leads, tabs or snaps.

Fig. 1

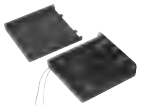


Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

| Part No. | Cross Ref. No. | Mfr. | Fig. | No. of Cells | Conn. (L") | Features | 1 | 10 | 100 | 500 |
|---|---|---|---|---|---|---|---|---|---|---|
| 216312 | SBH-431-1AS*R* | JRP | 1 | 3-AAA | Wires, 6.0 | w/ cover & switch, 26 AWG | $.95 | $.85 | $.75 | $.69 |
| 216339 | SBH-441-AS*R* | JRP | 2 | 4-AAA | Wires, 5.5 | w/ cover & switch, 26 AWG | 1.45 | 1.29 | 1.19 | .89 |
| 216072 | BH-311-2A*R* | JRP | 3 | 1-AA | Wires, 5.5 | 26 AWG | 1.05 | .95 | .85 | .75 |
| 216120 | SBH-321-1AS*R* | JRP | 4 | 2-AA | Wires, 5.5 | w/ cover & switch, 26 AWG | .89 | .79 | .72 | .65 |
| 2151224 | 140 | KEY | 5 | 2-AA | Solder lugs | Metal holder | 1.49 | 1.25 | .99 | .89 |
| 216136 | BH-331-A*R* | JRP | 1 | 3-AA | Wires, 5.5 | 26 AWG | .85 | .77 | .69 | .62 |
| 216401 | BH-142-A*R* | JRP | 6 | 4-D | Wires, 5.5 | 24 AWG | 1.35 | 1.19 | 1.09 | .89 |
| 2128067 | SBH-9VAS*R* | JRP | 4 | 1-9V | Wires, 5.5 | w/ cover & switch, 26 AWG | 1.39 | 1.25 | 1.09 | .95 |
| 216427 | BH-9V-A*R* | JRP | 7 | 1-9V | Wires, 5.5 | 26 AWG | .75 | .69 | .59 | .55 |

* JRP = Jameco ReliaPro | KEY = Keystone

*For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

**DT830B**

P/N 1928476

$8.95

**MN35**

P/N 645618

$19.99

**DVM810**

P/N 2131127

$9.95

**MAS830L**

P/N 220759

$14.95

**MAS838**

P/N 220741

$19.95

**BP-1415**

P/N 318764

$59.95

**EX330**

P/N 645626

$59.99

**115**

P/N 1537328

$159.95

**117**

P/N 1537336

$179.95

**MY64**

P/N 220775

$39.95

**MN26T**

P/N 211650

$44.99

**EX570**

P/N 2112532

$249.99

**179**

P/N 185535

$299.95

*All meters come with probes/leads*

*Web Code: HBK

| Jameco Part No. | Manufacturer Part No. | Type | No. of Functions | Display Count | Basic Measurement Functions: Resolution (max DC) | DC Voltage Ranges (V) | AC Voltage Ranges (V) | DC Current Ranges (A) | AC Current Ranges (A) | Resistance Ranges (Ω) | Capacitance Ranges (F) | Frequency Ranges (Hz) | Temperature Range °C | Temperature Range °F | Test Functions: Diode Test | Battery Test | Continuity Test | Transistor hFE Test | Special Functions: Autorange | Analog Bargraph | True RMS | Size (H" x W" x D") | Jameco Part No. | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1928476 | BenchPro DT830B | DMM | 4 | 1999 | 1V | 200mV - 1000V | 200V - 750V | 200µA - 10A | — | 200Ω - 2MΩ | — | — | — | — | ✔ | | | ✔ | | | | 5.0 x 2.7 x 1.0 | 1928476 | $8.95 | $7.95 |
| 645618 | Extech MN35 | DMM | 5 | 2000 | 100µV | 200mV - 600V | 200mV - 600mV | 200mA - 10A | — | 200Ω - 20MΩ | — | — | -20 to 750 | -200 to 1400 | ✔ | | ✔ | | | | | 5.4 x 3.0 x 1.5 | 645618 | 19.99 | 18.95 |
| 2131127 | Velleman DVM810 | DMM | 7 | 2000 | 1V | 200mV - 500V | 200mV - 500V | 200µA - 10A | — | 200Ω - 2MΩ | — | — | — | — | ✔ | | | ✔ | | | | 3.6 x 1.8 x 1.0 | 2131127 | 9.95 | 8.95 |
| 220759 | Mastech MAS830L | DMM | 7 | 2000 | 100µV | 200mV - 600V | 200V - 600V | 200µA - 10A | — | 200Ω - 2MΩ | — | — | — | — | ✔ | | ✔ | | | | | 5.7 x 3.0 x 1.4 | 220759 | 14.95 | 13.95 |
| 220741 | Mastech MAS838 | DMM | 8 | 2000 | 100µV | 200mV - 600V | 200V - 600V | .2mA - 10A | — | 200Ω - 2MΩ | — | — | -20 to 1000 | — | ✔ | | ✔ | | | | | 5.7 x 3.0 x 1.4 | 220741 | 19.95 | 17.95 |
| 318764 | BenchPro BP-1415 | DMM | 8 | 20,000 | 10µV | 200mV - 1000V | 2V - 700V | 2mA - 20A | 2mA - 20A | 200Ω - 200MΩ | 2000pF - 20µF | 20k | — | — | ✔ | | ✔ | ✔ | | | | 7.4 x 3.6 x 1.2 | 318764 | 59.95 | 54.95 |
| 645626 | Extech EX330* | DMM | 9 | 4000 | 100µV | .1mV - 1000V | .1mV - 750V | .1µA - 10A | .1µA - 10A | .1Ω - 40MΩ | .001nF - 200µF | .001 - 10M | -50 to 1000 | -58 to 1832 | ✔ | | ✔ | | ✔ | | | 5.7 x 2.9 x 1.6 | 645626 | 59.99 | 56.95 |
| 1537328 | Fluke 115† | DMM | 9 | 6000 | 100µV | 600mV - 600V | 600mV - 600V | 6A - 10A | 6A - 10A | 600Ω - 40MΩ | 1000nF - 9999µF | 99.99 - 50k | — | — | ✔ | | ✔ | | ✔ | ✔ | ✔ | 6.3 x 3.3 x 1.9 | 1537328 | 159.95 | — |
| 1537336 | Fluke 117*† | DMM | 9 | 6000 | 100µV | 600mV - 600V | 600mV - 600V | 6A - 10A | 6A - 10A | 600Ω - 40MΩ | 1000nF - 9999µF | 99.99 - 50k | — | — | ✔ | | ✔ | | ✔ | ✔ | ✔ | 6.3 x 3.3 x 1.9 | 1537336 | 179.95 | — |
| 220775 | Mastech MY64 | DMM | 11 | 2000 | 100µV | 200mV - 1000V | 200mV - 700V | 2mA - 10A | 2mA - 10A | 200Ω - 200MΩ | 2nF - 20µF | 2k - 20k | -20 to 1000 | — | ✔ | | ✔ | ✔ | | | | 7.4 x 3.6 x 1.3 | 220775 | 39.95 | 35.95 |
| 211650 | Extech MN26T | DMM | 11 | 4000 | 100µV | 400mV - 600V | 400mV - 600V | 400µA - 10A | 400µA - 10A | 400Ω - 40MΩ | 4nF - 200µF | 10 - 10M | 0 to 760 | 0 to 1400 | ✔ | | ✔ | | ✔ | | | 4.8 x 2.4 x 1.6 | 211650 | 44.99 | 42.95 |
| 2112532 | Extech EX570 | DMM | 12 | 40,000 | 0.1V | 0.1mV - 1000V | 0.1mV - 1000V | .1µA-10A | .1µA-10A | 0.01 - 40M | .001nF - 10,000µF | .0001Hz - 40MHz | -45 to 750 | -50 to 1382 | ✔ | ✔ | ✔ | | | ✔ | ✔ | 7.3 x 3.3 x 2.3 | 2112532 | 249.99 | 239.95 |
| 185535 | Fluke 179† | DMM | 13 | 6000 | 100µV | 600mV - 1000V | 600mV - 1000V | 60mA - 10A | 60mA - 10A | 600Ω - 50MΩ | 1000nF - 9999µF | 99.99 - 99.99k | -40 to 400 | -40 to 752 | ✔ | | ✔ | | ✔ | ✔ | ✔ | 7.3 x 3.5 x 1.7 | 185535 | 299.95 | — |

* With non-contact voltage detector (100-600VAC range) † With backlight

## Analog Panel Meters

• Includes mounting hardware • **316507:** Includes current shunt

*Web Code: YBQ

| Part No. | Product No. | Range | Size (W" x H" x D") | 1 | 10 |
|---|---|---|---|---|---|
| 316603 | AVM6015 | 0 – 15VDC | 2.4 x 1.8 x 1.3 | $9.95 | $8.95 |
| 2162863 | 820225 | 0 – 15VDC | 2.4 x 2.4 x 1.4 | 6.95 | 6.25 |
| 316671 | AVM7015 | 0 – 15VDC | 2.8 x 2.4 x 1.4 | 9.95 | 8.95 |
| 316654 | AVM7030 | 0 – 30VDC | 2.8 x 2.4 x 1.4 | 9.95 | 8.95 |
| 315301 | AIM60005 | 0 – 50µA | 2.4 x 1.8 x 1.3 | 9.95 | 8.95 |
| 316523 | AIM6050 | 0 – 50mA | 2.4 x 1.8 x 1.3 | 8.95 | 7.95 |
| 316486 | AIM60100 | 0 – 100mA | 2.4 x 1.8 x 1.3 | 9.95 | 8.95 |
| 316558 | AIM60500 | 0 – 500mA | 2.4 x 1.8 x 1.3 | 9.95 | 8.95 |
| 316566 | AIM60500 | 0 – 5A | 2.4 x 1.8 x 1.3 | 9.95 | 8.95 |
| 316582 | AIM705000 | 0 – 5A | 2.8 x 2.4 x 1.4 | 9.95 | 8.95 |
| 316494 | AIM6010A | 0 – 10A | 2.4 x 1.8 x 1.3 | 9.95 | 8.95 |
| 316507 | AIM6030A | 0 – 30A | 2.4 x 1.8 x 1.3 | 12.95 | 11.65 |

316603

316523

## LCD Digital Panel Meters

- Input ranges: 200mV, 20V, 200V, 500V
- Input impedance: >100MΩ
- Accuracy: ±0.5%
- Size: 2.7"W x 1.7"H
- Supply volt.: 8-12VDC (recommend 9V battery P/N 151095, see Web) • Automatic polarity indication
- 1% resistors available (recommend P/N 2076121, see Web)

*Web Code: WBU

2152323

| Part No. | Product No. | Description | 1 | 10 | 25 |
|---|---|---|---|---|---|
| 2131135 | PMLCDL | 3½-digit | $7.95 | $7.49 | $6.95 |
| 2152323 | DFR0130-B* | 3-digit LED (4.5V-30V w/ 1% accuracy) | 9.95 | 8.95 | 7.95 |
| 108388 | PM-428† | 3½-digit (no bezel, snap mount) | 9.95 | 8.95 | 7.95 |
| 175951 | PM-128† | 3½-digit (bezel, screw mount) | 12.95 | 11.65 | 10.49 |
| 146835 | PM-188BL† | 3½-digit (with backlight display) | 14.95 | 13.45 | 11.95 |

Cannot use in common ground app. † Only the PM ports *Mfr.: 2131135: Velleman; 2152323: DFRobot

## Test Clips, Plugs and Posts

*Web Code: TLC

| Part No. | Manufacturer | Product No. | Description | Size (in.) | 1 | 10 | 100 |
|---|---|---|---|---|---|---|---|
| 71240 | BenchPro | GIP-003-R | Binding post, screw type, chassis mount 1 black, 1 red | 1.0 L x .50 Dia. | $1.65 | $1.49 | $1.35 |
| 77691 | BenchPro | GIP-001-R | Binding post, screw type, chassis mount 1 black, 1 red | 1.8 L x .50 Dia. | 1.75 | 1.59 | 1.39 |
| 125197 | BenchPro | GBRR2-R | Screw mount double binding/banana post, black/red | 1.6 L x 1.4 W | 3.95 | 3.49 | 2.95 |
| 72195 | BenchPro | GBP205-R | Set screw banana plug, 1 black, 1 red | 1.6 L x .40 Dia. | 1.59 | 1.45 | 1.29 |
| 137526 | BenchPro | HP-2234P-R | Set screw banana plug, 1 black, 1 red | 2.3 L x .30 Dia. | 3.49 | 2.99 | 2.49 |
| 159927 | Pomona | MDP-02 | Solderless stackable dbl banana plug, w/ wire guide, red (set of 2) | 1.55 L x 1.18 W | 5.75 | 5.49 | 5.19 |
| 11440 | BenchPro | 03-701A-R | BNC female to standard double banana plug, black | 2.03 L x 1.7 W | 4.95 | 4.49 | 3.95 |
| 125233 | BenchPro | GB1BN2 | BNC female to double binding/banana posts, black | 2.14 L x 1.8 W | 4.95 | 4.49 | 3.95 |
| 99355 | BenchPro | GB2BN2 | BNC male to double binding/banana posts, black | 2.35 L x 1.7 W | 4.95 | 4.49 | 3.95 |
| 114810 | BenchPro | G2P004-R | Micro test clip, 1 red, 1 black | 1.7 L | 1.59 | 1.45 | 1.29 |
| 256525 | BenchPro | SF105B-R | Alligator clip, barrel/screw, 2" (set of 2) | 2.0 L x .20 Dia. | .55 | .49 | .45 |
| 70991 | BenchPro | GIP006-R | Insulated alligator clips, 1 black, 1 red | 2.3 L x .50 W | .55 | .49 | .39 |
| 248962 | BenchPro | SF-103SV-BK | Black insulator sleeve for PNs 248939 & 256525 (set of 2) | 2.1 L x .20 Dia. | .35 | .29 | .25 |
| 248972 | BenchPro | SF103SV-RD-R | Red insulator sleeve for PNs 248939 & 256525 (set of 2) | 2.1 L x .20 Dia. | .35 | .29 | .25 |

71240

125197

72195

159927

11440

114810

256525

248972

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.





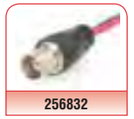
## Test Leads and Cables

*Web Code: RAC

176971

11384

11422



256832

2113869

2158477

212222

168516

155951

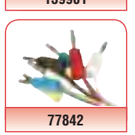
| Part No. | Manufacturer | Product No. | Description | Size (L") | 1 | 10 | 25 |
|---|---|---|---|---|---|---|---|
| 159871 | Pomona | 2249-C-36 | BNC male to male cable, RG58C/U, 50Ω, 20 AWG, black | 36 | $16.25 | $15.49 | $14.75 |
| 176971 | Pomona | 4532-C-36 | BNC male to Mini alligator clips w/ strain relief, RG58C/U, 50Ω, 20AWG, blk | 36 | 19.95 | 17.95 | 16.95 |
| 11384 | BenchPro | GCA26-R | BNC male to Alligator clip, RG58/U, black | 23 | 4.49 | 3.95 | 2.95 |
| 11464 | BenchPro | 05-A-078-R | BNC male to Mini-clip test lead, RG174A/U, black | 39 | 4.49 | 3.95 | 3.59 |
| 11422 | BenchPro | 05-A-081-R | BNC male to Micro-clip test lead, RG174A/U, black | 39 | 4.25 | 3.95 | 3.59 |
| 2097150 | Pomona | 5187-C-36 | BNC male to MiniGrabber test leads, RG58C/U 50Ω, 20 AWG, black | 36 | 19.95 | 18.95 | 17.95 |
| 256832 | BenchPro | CBB-069 | BNC female to pigtail, 20 AWG, 2 wire, 1 black, 1 red | 7 | 5.49 | 4.95 | 4.49 |
| 2097555 | BenchPro | CBB-070 | BNC male to pigtail, 20 AWG, 2 wire, 1 black, 1 red | 9 | 5.49 | 4.95 | 4.49 |
| 2113869 | Pomona | 3788 | BNC female Minigrabber test clips (2nd end) | 2.56 | 11.95 | 10.95 | 10.49 |
| 2158477 | BenchPro | FC16A | Probes w/ right angle banana, screw on alligator clips, 1 black, 1 red | 40 | 8.95 | 7.95 | 6.95 |
| 212222 | Probe Master | 8043S | Softie test probe leads, 10-pc. set, interchangeable tips, 18 AWG, 1 blk, 1 red | 48 | 26.95 | 25.95 | 24.95 |
| 168516 | BenchPro | GA-5010 | Universal test lead kit w/ 12 interchangeable tips, 1 black, 1 red | 36 | 8.95 | 7.95 | 6.95 |
| 2113914 | Pomona | 5953A | Adjustable tip test probe set, tip adjusts up to 3", 1 black, 1 red | 48 | 25.95 | 22.95 | 21.95 |
| 155951 | Pomona | 5519A | Banana plug to rt. angle probe, insulated leads, 18 AWG 1 blk, 1 red | 48 | 15.49 | 13.95 | 13.25 |
| 77746 | BenchPro | FC-15B-R | Standard banana style multimeter test probes, 1 black, 1 red | 42 | 7.49 | 6.75 | 5.95 |
| 10444 | BenchPro | GAL01 | Alligator clip test leads, 24 AWG (19/36), 10-pc. assorted colors | 21 | 4.95 | 4.49 | 3.95 |
| 2185483 | BenchPro | GAL02 | Alligator clip test leads, 24 AWG, 1 black, 1 red | 21 | 1.95 | 1.69 | 1.49 |
| 159901 | Pomona | B-24-02 | Stackable banana patch cords, 18 AWG, 1 black, 1 red | 24 | 10.25 | 9.75 | 9.25 |
| 159919 | Pomona | B-36-02 | Stackable banana patch cords, 18 AWG, 1 black, 1 red | 36 | 10.25 | 9.75 | 9.25 |
| 77842 | BenchPro | KLN-4-25/H-R | Stackable banana patch cords, 18 AWG, 2 ea. (blk,red,blue,white,yellow) | 9.8 | 26.95 | 23.95 | 20.95 |
| 2192456 | BenchPro | AC-SB-36 | Alligator clip to stackable banana plug, 20 AWG, 1 black, 1 red | 36 | 7.95 | 6.95 | 6.25 |
| 107423 | BenchPro | GCA340-R | Double banana plug to alligator clip test leads, 1 black, 1 red | 36 | 3.95 | 3.59 | 3.19 |
| 21857 | BenchPro | 05-A-082-R | Mini-clip to stackable banana test leads, black | 39 | 3.95 | 3.49 | 2.95 |
| 21865 | BenchPro | 05-A-079-R | Mini-clip to stackable banana test leads, red | 39 | 3.95 | 3.49 | 2.95 |
| 159899 | Pomona | 3782-36-02 | Mini-clip w/ stackable banana test leads, 20 AWG, 1 black, 1 red | 36 | 12.95 | 11.95 | 11.25 |
| 135299 | BenchPro | SF-207A-R | Mini-clip test leads, 26 AWG, 5 sets (blue, black, yellow, red, green) | 14 | 10.95 | 9.95 | 8.95 |
| 155977 | Pomona | 4408 | 10 slot test lead holder, accepts RG59 & RG108 wire sizes (black) | 11 | 10.95 | 9.95 | 9.49 |

77746

10444

159901

159919



77842

2192456

107423

159899

135299

155977

*For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

# Function Generators, Oscilloscopes & Probe Sets

3 LEVELS OF SAVINGS: NAME BRANDS | HOUSE BRANDS | SPECIAL BUY

## Function Generators

NEW MARKED IN PINK

SKMI velleman INSTEK B&K PRECISION

*Web Code: DEJ

2175832

229251

685329

2112831

160469

| Part No. | Manufacturer | Mfr. Part No. | Features | Bandwidth | # of Waveform Types | Size (in.) | Wt. (lbs.) | Includes* | Price |
|---|---|---|---|---|---|---|---|---|---|
| 2175832 | Velleman | HPG1 | Pocket-sized, white LED backlight, DDS, DAC resolution: 10 bits | 1MHz | 3 | 2.9 x 4.5 x 1.14 | 0.81 | 1, 2, 3 | $139.95 |
| 229251 | Instek | GFG-8020H | Built-in 4-digit counter with CMOS output | 2MHz | 5 | 9.1 x 3.7 x 11.0 | 4.6 | 1, 2, 3 | 214.95 |
| 2160411 | Instek | SFG-1003℞ | DDS with FPGA design & 6-digit LED display | 3MHz | 4 | 9.9 x 3.6 x 11.5 | 4.6 | 1, 2, 3 | 174.95 |
| 685329 | SKMI | SK-3000 | Rotary switch w/ positive/negative pulses | 3MHz | 6 | 10.5 x 3.9 x 11.2 | 6.6 | 1, 3 | 209.95 |
| 229260 | Instek | GFG-8216A | Built-in 6-digit counter with INT/EXT function | 3MHz | 6 | 9.9 x 3.6 x 11.5 | 4.6 | 1, 2, 3 | 244.95 |
| 2112831 | SKMI | SK5200 | Rotary switch control w/ built-in 60MHz counter | 5MHz | 6 | 11.8 x 3.5 x 10.8 | 5.5 | 1, 3 | 279.95 |
| 160469 | B&K Precision | BK/4011A | 4-digit digital LED display, coarse/fine tuning, variable duty cycle | 5MHz | 4 | 10.4 x 11.7 x 3.4 | 7.8 | 1, 2, 3 | 354.95 |

*1. Power cord 2. BNC cable 3. User's manual

## Oscilloscopes

PARALLAX INC OSCIUM velleman SKMI EXTECH INSTRUMENTS FLUKE UNI-T

NEW MARKED IN PINK

*Web Code: RCG

2205907

2205931

2136518

2160534

2127339

2137422

2128294

1536886

695017

2143401

| Part No. | Manufacturer | Mfr. Part No. | Bandwidth | Features | Size (in.) | Wt. (lbs.) | Includes | Price |
|---|---|---|---|---|---|---|---|---|
| 2205940 | Gabotronics | GT-0007℞ | 200kHz | Mixed signal, 2MSa/s, PDI interface, board and headers | 1.98 x 1.01 | 0.017 | Two 10-pin headers | $22.95 |
| 2205907 | Gabotronics | GT-0010℞ | 200kHz | Mixed signal plug-in DIP package, 2MSa/s, 0.96" OLED | 1.615 x 1.01 | 0.024 | Two 10-pin headers | 54.95 |
| 2205915 | Gabotronics | GT-0005℞ | 200kHz | Mixed signal plug-in DIP package, 2MSa/s, 2.42" OLED | 3.3 x 1.75 | 0.065 | Two 10-pin headers | 74.95 |
| 2205923 | Gabotronics | GT-0012℞ | 200kHz | Mixed signal handheld, 2MSa/s, 1.3" OLED, 600mAh Li-Ion | 3.13 x 1.83 x 0.7 | 0.37 | Header, USB cable, 2 test clip leads | 104.95 |
| 2205931 | Gabotronics | GT-0015℞ | 200kHz | Mixed signal handheld, 2MSa/s, 2.42" OLED, 750mAh Li-Ion | 3.17 x 2.22 x 0.7 | 0.40 | Header, USB cable, 2 test clip leads | 129.95 |
| 2136518 | Parallax | 32220℞ | — | Propscope, 2-channels, 25MSa/s, built-in expansion port, software for multiple test equipment | 4.7 x 2.7 x 1.1 | 1.0 | 2 probes (x1/x10), USB cable, DAC expansion card | 199.95 |
| 2160534 | Oscium | IMSO-104 | 5MHz | Mixed signal scope for iPad, iPhone, and iTouch; 12MSa/s, 1 analog channel, 4 digital channels | 1.6 x 2.2 x 0.4 | 0.39 | Test probe (x1/x10), harness (4 digital +1 ground), SMD grabbers | 299.95 |
| 2196051 | Oscium | IMSO-204 | 5MHz | Mixed signal scope for iPad, iPhone; 50MSa/s, 2 analog/4 digitals channels | 1.6 x 2.2 x 0.4 | 0.48 | 2 test probes (1x/10x), harness, SMD grabbers, screwdriver | 399.95 |
| 2127339 | Velleman | HPS140I℞ | 10MHz | Handheld pocket size, 40MSa/s, hold/store function, autorange, 6 hours on single charge | 2.9 x 4.5 x 1.1 | 0.91 | NiMH rechargeable battery pack, test probe (x10), USB charger | 189.95 |
| 2187454 | Velleman | PCSU200℞ | 12MHz | USB PC-Based scope, function generator, transient recorder, bode plotter, and spectrum analyzer | 3.9 x 3.9 x 1.4 | 0.54 | USB cable, user's manual | 149.95 |
| 2137422 | Velleman | PCSGU250℞ | 12MHz | All-in-One PC lab with o-scope, spectrum analyzer, recorder, function generator, bode plotter | 2.2 x 8.2 x 7 | 2.1 | Scope probe, BNC-to-RCA adaptor, USB cable, CD software, manual | 249.95 |
| 160661 | Fluke | FLUKE-123/003 | 20MHz | Industrial scopemeter, 2-channel, RS-232, saves 10 waveform screens, TrendPlot recorder | 4.5 x 9.1 x 2.0 | 5.5 | NiCd battery pack, charger, leads, clips, user's manual | 1,499.95 |
| 2128294 | Velleman | HPS50℞ | 40MHz | Handheld, 40MSa/s, adjustable trigger, USB output, auto setup, high resolution: 192x112 | 4.3 x 6.9 x 1.6 | 2.8 | Li-Ion battery, charger, 1 test probe (x1/x10), USB cable | 374.95 |
| 1536886 | SKMI | SK0404 | 40MHz | 2-Channel scope with built-in 5MHz function generator, 6" CRT display, 20Vp-p output | 15.7 x 5.2 x 12.8 | 23.8 | 2 test probes (x1/x10), BNC cable, AC cord, spare fuse | 549.95 |
| 1586200 | Arctic | SK0409 | 40MHz | 2-Channel scope with built-in 5MHz function generator and frequency counter | 15.7 x 5.2 x 12.8 | 23.8 | 2 test probes (x1/x10), BNC cable, AC cord, spare fuse | 699.95 |
| 695017 | Velleman | PCSU1000 | 50MHz | 2-Channel USB PC scope, auto setup, with spectrum analyzer/transient recorder test functions | 2.2 x 8.2 x 7 | 2.9 | Two 60MHz scope probes, USB cable, user's manual, CD software | 449.95 |
| 2171655 | Uniteq | DS-1065 | 60MHz | 2-Channel, 500MSa/s, built-in delay sweep function, 320x240 pixel high-resolution 5.7" display, USB storage | 11.8 x 5.9 x 5.1 | 8.0 | 2 probes, DB9 cable, USB cable, power cord, user's manual, CD software | 599.95 |
| 2143401 | Instek | GDS-1152A-U | 150MHz | 2-Channel, 1GSa/s, 2Mpoint record length | 12.2 x 5.6 x 5.5 | 7.9 | Test probe, AC cord, user's manual | 934.95 |

## Oscilloscope Probe Sets

- Input resistance at x10 ratio: 10MΩ
- Accessories may include: tips, ground lead, hooks, protection caps, trimmer screwdriver

JAMECO BenchPro Pomona velleman EZ DIGITAL

*Web Code: RAC

2145342

22892

2189880

156451

236777

| Part No. | Manufacturer | Mfr. Part No. | Bandwidth | Attenuation Ratio | Description | Length (ft.) | 1 | 5 |
|---|---|---|---|---|---|---|---|---|
| 2130781 | Velleman | PROBE60S | 60MHz | 1:1 or 10:1 | IEC-1010 CAT II, 600V max | 4 | $13.95 | $12.49 |
| 2145342 | EZ Digital | T5060 | 60MHz | 1:1 or 10:1 | 300VDC max. | 4 | 19.95 | 17.95 |
| 22892R | BenchPro | LF101E℞ | 60MHz | 1:1 or 10:1 | 600VDC max. | 5 | 24.95 | 22.49 |
| 2189880 | BenchPro | P6100* | 100MHz | 1:1 or 10:1 | 600VDC max. | 4 | 19.95 | 17.95 |
| 2130618 | Velleman | PROBE100 | 100MHz | 1:1 or 10:1 | IEC-1010 CAT II, 600V max | 4 | 20.95 | 18.95 |
| 156451 | Pomona | 4550B | 100MHz | 1:1 or 10:1 | IEC-1010-2-031 CAT I, 300V max | 4 | 64.95 | 59.95 |
| 2130482 | Velleman | PROBE250 | 250MHz | 1:1 or 10:1 | IEC-1010 CAT II, 600V max | 4 | 34.95 | 32.95 |
| 236777 | BenchPro | HP-9250 | 250MHz | 1:1 or 10:1 | 600VDC max. | 5 | 39.95 | 35.95 |

*2 probes included

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Single Output Benchtop Power Supplies

★Web Code: SAX

- Voltage and current adjustable

301920

175257

645600

301971

207618

301911

207706

175249

| Part No. | Mfr. | Mfr. Part No. | Voltage (VDC)/ Current (A) | Power (W) | Displays (Digits) | Input Voltage (VAC) | Short Circuit Protection | Overload Protection | Size (W" x H" x D") | Weight (lbs.) | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **301920** | Mastech | HY1503C | 15/3 | 45 | 2-Analog | 115 ±10% | Y | N | 3.8 x 6.3 x 9.1 | 9 | **$99.95** | **$89.95** |
| **2130378** | Velleman | PS1503SBU | 15/3 | 45 | 2-Digital LCD (3.5) | 220 @ 50Hz | Y | N | 8.4 x 6.0 x 3.8 | 6.7 | **99.95** | **94.95** |
| **175265** | BenchPro | DPS150A | 15/10 | 150 | 2-Analog | 110 @ 60Hz | Y | Y | 6.2 x 4.0 x 5.7 | 12 | **124.95** | **119.95** |
| **175257** | BenchPro | SPS250A | 15/15 | 225 | 2-Analog | 110/220 @ 47-63Hz | Y | Y | 6.2 x 4.0 x 5.6 | 3.8 | **159.95** | **144.95** |
| **681221** | Extech | 382202 | 18/3 | 54 | 2-Digital LCD (4) | 120 @ 60 Hz | Y | Y | 9.4 x 6.1 x 4.3 | 6.6 | **139.99** | **132.95** |
| **645600** | Extech | 382200 | 30/1 | 30 | 2-Digital LCD (4) | 100/240 @ 47-63Hz | Y | Y | 9.4 x 6.1 x 4.3 | 4.4 | **129.99** | **122.95** |
| **301971** | Lascar | PSU130 | 30/1 | 30 | 2-Digital LCD (4) | 100/240 @ 47-63Hz | Y | Y | 5.5 x 1.6 x 5.2 | 1.2 | **89.95** | **84.95** |
| **301866** | Mastech | HY3003D | 30/3 | 90 | 2-Digital LCD (4) | 115 ±10% | Y | N | 5.4 x 6.2 x 11.5 | 10 | **159.95** | **144.95** |
| **207618** | Mastech | HY3005C | 30/5 | 150 | 2-Analog | 115 ±10% | Y | N | 5.4 x 6.2 x 11.5 | 14 | **159.95** | **135.95** |
| **301911** | Mastech | HY3005D | 30/5 | 150 | 2-Digital LCD (4) | 115/230 ±10% (switchable) | Y | N | 5.4 x 6.2 x 11.5 | 13 | **199.95** | **179.95** |
| **207635** | Mastech | HY3010*R* | 30/10 | 300 | 2-Digital LED (4) | 115/230 ±10% (switchable) | Y | N | 10.4 x 6.5 x 14.4 | 31 | **299.95** | **269.95** |
| **207686** | Mastech | HY3020*R* | 30/20 | 600 | 2-Digital LED (4) | 115 ±10% | Y | N | 10.4 x 6.5 x 14.4 | 42 | **499.95** | **449.95** |
| **207694** | Mastech | HY5002*R* | 50/2 | 100 | 2-Digital LED (4) | 115/230 ±10% (switchable) | Y | N | 5.4 x 6.2 x 11.5 | 13 | **169.95** | **149.95** |
| **163723** | BenchPro | DPS-3050 | 50/3 | 150 | 2-Analog | 110 @ 60Hz | Y | Y | 4.8 x 7.5 x 9.0 | 12.3 | **134.95** | **119.95** |
| **207706** | Mastech | HY5003 | 50/3 | 150 | 2-Digital LED (4) | 115 ±10% | Y | N | 5.4 x 6.2 x 11.5 | 13 | **209.95** | **189.95** |
| **301938** | Mastech | HY3005 | 30/5 | 195 | 2-Digital LED | 115/230 ±10% | Y | N | 11.5 x 5.25 x 6.25 | 10 | **174.95** | **159.95** |
| **207600** | Mastech | HY5005 | 50/5 | 250 | 2-Digital LED (4) | 115/230 ±10% (switchable) | Y | N | 10.4 x 6.5 x 14.4 | 17 | **229.95** | **209.95** |
| **175249** | BenchPro | DPS5050 | 50/5 | 250 | 2-Analog | 110 @ 50-60Hz | Y | Y | 7.7 x 6.7 x 4.9 | 13.8 | **179.95** | **159.95** |

## Multiple Output Benchtop Power Supplies

★Web Code: SAX

Perfect for Laboratory Use

These benchtop power supplies are a must for every laboratory. They sit out of the way of your workspace and stay ready to supply power at all times. Single and multiple outputs are available for your specific laboratory needs. Standard banana input plugs provide easy connections and precision adjustment knobs provide exact power outputs for all your projects.

- Voltage and current adjustable

211693

301962

301947

197991

197982

1939618

| Part No. | Mfr. | Mfr. Part No. | Voltage (VDC)/ Current (A) | Power (W) | Input Voltage | Displays (Digits) | Short Circuit Protection | Overload Protection | Size (W" x H" x D") | Weight (lbs.) | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **211705** | Mastech | HY3002D-2 | 0-30/2; 0-30/2 | 120 | 115/230 ±10% | 4-Digital LCD (3.5) | Y | N | 10.4 x 6.5 x 14.4 | 23 | **$224.95** | **$199.95** |
| **211693** | Mastech | HY3003D-2*R* | 0-30/3; 0-30/3 | 180 | 115/230 ±10% | 4-Digital LCD (3.5) | Y | N | 10.4 x 6.5 x 14.4 | 28 | **219.95** | **199.95** |
| **301962** | Mastech | HY5003-2 | 0-50/3; 0-50/3 | 300 | 115/230 ±10% | 2-Digital LED (3.5) | Y | N | 10.4 x 6.5 x 14.4 | 26 | **279.95** | **249.95** |
| **301947** | Mastech | HY3005D-2*R* | 0-30/5; 0-30/5 | 300 | 115/230 ±10% | 4-Digital LCD (3.5) | Y | N | 10.4 x 6.5 x 14.4 | 26.5 | **309.95** | **279.95** |
| **211684** | Mastech | HY3003D-3 | 0-30/3; 0-30/3; 5/3 | 195 | 115 ±10% | 4-Digital LCD (3.5) | Y | N | 10.4 x 6.5 x 14.4 | 29 | **299.95** | **269.95** |
| **2145828** | Unitech | PS-2303 | 0-30/3; 0-30/3; 5/3 | 195 | 110-120 @ 50-60Hz | 4-Digital LED (3.5) | Y | Y | 9.6 x 5.5 x 13.6 | 17.6 | **324.95** | **299.95** |
| **301955** | Mastech | HY3005D-3*R* | 0-30/5; 0-30/5; 5/3 | 195 | 115/230 ±10% | 4-Digital LCD (3.5) | Y | N | 10.4 x 6.5 x 14.4 | 29 | **349.95** | **314.95** |
| **2145801** | Uniteq | PS-3303 | 0-30/3; 0-30/3; 5/3 | 195 | 110/220 @ 50/60Hz | 4-Digital LED (3) | Y | Y | 11.8 x 8.7 x 5.8 | 11.1 | **349.95** | — |
| **197991** | Extech | 382213 | 0-30/3; 5/0.5; 12/0.5 | 98.5 | 110/120 @ 50-60Hz | 2-Digital LCD (3) | Y | Y | 6 x 5.6 x 9.5 | 11 | **199.99** | **189.95** |
| **197982** | Extech | 382203 | 0-30/3; 5/0.5; 12/0.5 | 98.5 | 110/120 @ 50-60Hz | 2-Analog | Y | Y | 6 x 5.6 x 9.5 | 11 | **169.99** | **159.95** |
| **1939618** | Extech | 382270 | 0-30/5; 0-30/5; 3-6/3; 8-15/1 | 334.5 | 110-127/220-240 ±10%* | 4-Digital LED (4) | Y | Y | 10.2 x 6.3 x 14.5 | 26.5 | **459.99** | **434.95** |

* Selectable

## Drill Mountable Panel Meters

LASCAR

★Web Code: WBU

- Mount by simply drilling a single hole (7/32") and insert the threaded section of the panel meter
- Module size: 1.71"L x 0.84"W

2095040

2095082

2095074

2113201

2116584

| Part No. | Mfr. Part No. | Description | Digit Ht. | Supply Volt. | Measurement Range | 1 | 5 | 25 |
|---|---|---|---|---|---|---|---|---|
| **2113201** | EMV-1125*R* | 3½-digit, LCD volt/current meter | .50" | 7.5-15VDC | 200mV-20V/200µA-200mA | **$32.95** | **$29.95** | **$27.95** |
| **2095040** | EMV 1200 | 3-digit, signal pwrd, LCD voltmeter | .50" | 3-50VDC | 4-25VDC | **33.95** | **30.95** | **27.95** |
| **2095058** | EMT 1900 | 3½-digit, LCD thermometer | .50" | 4-28VDC | 14-122°F | **27.95** | **25.95** | **24.95** |
| **2095074** | EMC 1500 | 5-digit, LCD hour meter | .35" | 5-27VDC | 99999 hours | **32.95** | **29.95** | **27.95** |
| **2095082** | EMA 1710 | Analog-style LCD panel meter | — | 5-12VDC | 0-1VDC | **24.95** | **22.95** | **19.95** |
| **2116584** | V1*R* | 3½-digit, LCD voltmeter | .25" | 7-12VDC | 200mV-20V | **16.95** | **15.95** | **14.95** |

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## Weller® 40-Watt Soldering Station

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 120V @ 60Hz
- Temperature is electronically controlled from 350°F to 850°F
- Illuminated on/off switch • Light weight pencil iron
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

**Includes:** ST3 1/8" screwdriver tip and manual

| Part No. | Mfr. Part No. | 1 | 5 |
|---|---|---|---|
| 146595 | WLC100℞ | $54.95 | $49.95 |

## Weller® 50-Watt Analog & Digital Display Soldering Stations

Innovative heater and sensor combination for quick heat-up and rapid temperature recovery.

233533

- Tip temperature offset capability allows user to reset temperature readings to match tip size and style
- Wireless temp. lockout
- Auto power-down after 90 minutes of inactivity • Temp. accuracy: ±9°F
- Temperature range: 350°F to 850°F • ESD safe
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

**Includes:** PES51 50W soldering iron with ETA tip, PH50 stand and sponge, and adjustment tool

| Part No. | Mfr. Part No. | Description | 1 | 5 |
|---|---|---|---|---|
| 217461 | WES51℞ | Analog | $126.95 | $119.95 |
| 233533 | WESD51℞ | Digital | 179.95 | 169.95 |
| 2082847 | PES51℞ | Soldering iron | 42.95 | 39.95 |

## 600-Watt Lead-Free Hot Air SMD Rework Station

- Automatic cooling mode protects the heating element
- Adjustable air-flow: 1.5-40L/min
- Nichrome heating element
- Electronically controlled temperature system with digital readout in preset and actual temperature
- Hot air temp. range: 100°C - 480°C (212°F - 896°F)
- Temp lock-out feature, password protected
- Sensor/pump failure detection
- Static-free circuit design • 25W diaphragm pump
- Size: 7.3"W x 5.3"H x 9.6"D • Weight: 10.8 lbs.

**Includes:** Extra 600W heater, 4 focus hood tips, 5 stainless steel anti-magnetic tweezers, IC popper for IC extraction

| Part No. | Mfr. Part No. | 1 | 5 |
|---|---|---|---|
| 2128032 | LF-852D℞ | $225.95 | $199.95 |

## 22-Watt Fume Extractor

- Operate continuously providing filtered air
- Static ground jack
- Noise: 49dB fan
- Air flow: 115 CFM
- 120VAC, 60Hz, 22 watts
- Large surface area with adjustable angles
- Uses 130mm filters • Size: 7.2"W x 5.4"D x 7.9"H

**Includes:** Detachable power cord

| Part No. | Description | Wt. (lbs.) | 1 | 5 |
|---|---|---|---|---|
| 2171786 | Fume extractor℞ | 2.6 | $49.95 | $45.95 |
| 127183 | Replace. filters (3/pk)℞ | 0.05 | 9.95 | 8.95 |

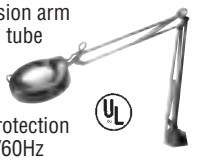
## Soldering Tip Cleaner with Stand

156777

- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability

| Part No. | Description | Wt. (lbs.) | 1 | 5 | 25 |
|---|---|---|---|---|---|
| 156777 | Tip cleaner & stand℞ | 0.5 | $6.95 | $6.39 | $5.79 |
| 160004 | Metal wool replacement℞ | 0.1 | 2.95 | 2.59 | 2.29 |

## 3 Diopter Magnifying Lamps



- 5" diameter lens • 45" extension arm
- Supplied w/ 22-watt circuline tube
- Extra strong, all-metal mounting base with electrical outlet
- Metal bulb holder for extra protection
- Power requirement: 110VAC/60Hz
- 3 diopter lens

| Part No. | Color | Wt. (lbs.) | 1 | 5 |
|---|---|---|---|---|
| 100829 | Black | 7.3 | $59.95 | $54.95 |
| 149981 | White | 7.3 | 59.95 | 54.95 |

## Third Hand Tools

681002

- Two adjustable arms with alligator clip jaws
- Quick and easy rotation
- Sturdy, heavy base

| Part No. | Description | Size | Wt. (lbs.) | 1 | 5 |
|---|---|---|---|---|---|
| 26690 | Third hand | 2.0" | 1.4 | $7.95 | $6.95 |
| 72865 | With holder/sponge℞ | 2.0" | 1.4 | 10.95 | 9.95 |
| 681002 | With holder/sponge | 3.5" | 1.7 | 12.95 | 11.49 |

## Helping Hand with LED Magnifier Lamp

With the LED magnifier light ring, you will be able to see all the details of your project.

*Web Code: YAU

- Large lens with 2x magnification
- Small embedded lens to 4x magnification of extremely small parts
- Ring light with 16 LEDs and gooseneck for optimum lighting • Easily adjustable hinge
- Adjust. third hand w/ 2 alligator clips
- Additional flexible 9.8" (250mm) gripping arm with alligator clip
- Solder wire reel holder
- Soldering iron holder • Cast-iron base
- Stand size: 7.0"W x 7.0"H

**Includes:** Power adapter and sponge

| Part No. | Description | Wt. (lbs.) | 1 | 5 |
|---|---|---|---|---|
| 2168587 | Helping hand℞ | 2.9 | $74.95 | $69.95 |

## Solder Bars, Rolls and Pocket Packs

Due to extraordinary price fluctuations, solder prices are subject to change.

*Web Code: ABD

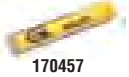
| Part No. | Manufacturer | % Composition Tin | Lead | Silver | Copper | Diameter Inches/mm | Weight | Type† | Pricing 1 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 73576 | Kester | 60 | 40 | — | — | 0.031/0.787 | 0.5 oz. | 2 | $3.29 | $2.95 |
| 32117 | Kester | 60 | 40 | — | — | 0.031/0.787 | 1.08 lbs. | 1 | 35.95 | 33.95 |
| 141786 | ValuePro | 60 | 40 | — | — | 0.031/0.787 | 1.13 lbs. | 1 | 32.95 | 29.95 |
| 94570 | Kester | 60 | 40 | — | — | 0.05/1.27 | 1.3 oz. | 2 | 4.95 | 4.49 |
| 2188959 | ValuePro℞ | 60 | 40 | — | — | 0.125/3.000 | 5.0 lbs. | 1 | 119.95 | 107.95 |
| 73605 | Kester | 62 | 36 | 2.0 | — | 0.02/0.508 | 0.35 oz. | 2 | 3.95 | 3.59 |
| 2177694 | ValuePro | 63 | 37 | — | — | 0.015/0.381 | 1.0 lb. | 1 | 39.95 | 34.95 |
| 151474 | Kester* | 63 | 37 | — | — | 0.031/0.787 | 1.0 lb. | 1 | 39.95 | 34.95 |
| 2158178 | Kester | 63 | 37 | — | — | 0.050/1.27 | 1.0 lb. | 1 | 34.95 | 29.95 |
| 115433 | Kester | 63 | 37 | — | — | 0.039/0.991 | 0.14 oz. | 3 | .99 | .89 |
| 668297 | ValuePro℞ | 96.3 | — | 3.2 | 0.5 | 0.04/1.02 | 1.1 lbs. | 1 | 84.95 | 79.95 |
| 2188254 | Kester℞ | 96.5 | — | 3.0 | 0.5 | 0.031/0.787 | 1.0 lb. | 1 | 109.95 | 99.95 |
| 170457 | ValuePro℞ | 99.3 | — | — | 0.7 | 0.031/0.787 | 0.8 oz. | 2 | 3.25 | 2.95 |
| 668078 | ValuePro℞ | 99.3 | — | — | 0.7 | 0.04/1.02 | 9.15 oz. | 1 | 26.95 | 24.95 |
| 209075 | ValuePro℞ | 99.3 | — | — | 0.7 | 0.031/0.787 | 1.0 lb. | 1 | 36.95 | 33.95 |
| 2188094 | ValuePro℞ | 99.3 | — | — | 0.7 | — | 1.64 lbs. | 4 | 49.95 | 44.95 |

*Organic core †1. Roll 2. Packet 3. Coil 4. 13" Bar

141786

115433

668297



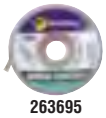
170457

## 5' Desolder Braids

*Web Code: DAG

| Part No. | Manufacturer | Product No. | Description | Width (in.) | 1 | 10 |
|---|---|---|---|---|---|---|
| 2188748 | Philips | ZW050-5℞ | Zip wick military & NASA certified | .050 | $3.95 | $3.49 |
| 124126 | Techspray | 1815-5F℞ | No-Clean, Military & NASA certified | .055 | 4.95 | 4.49 |
| 124118 | Techspray | 1816-5F℞ | No-Clean, Military & NASA certified | .075 | 4.95 | 4.49 |
| 263708 | Techspray | 1817-5F℞ | No-Clean, Military & NASA certified | .098 | 4.95 | 4.69 |
| 2192430 | Philips | ZW100-5℞ | Zip wick military & NASA certified | .100 | 3.95 | 3.49 |
| 263695 | Techspray | 1803-5F℞ | Pro wick, pure rosin | .075 | 3.95 | 3.75 |
| 41082 | ValuePro | GISW20℞ | Desolder braid | .079 | 1.95 | 1.75 |
| 41100 | ValuePro | GISW25℞ | Desolder braid | .098 | 2.19 | 1.99 |
| 153462 | ValuePro | GSR104D℞ | Desolder braid | .120 | 2.25 | 1.95 |

263708



263695

## Electric & Manual Desolder Pumps

2168261

19166

1942139

- Easily disassembles for cleaning
- Replacement tips available

**2168261:** • UL listed
- One-hand operation
- Size: 10.5"L x 1.0"Dia.

**19166:** Size: 7.8"L x 0.8"Dia.

**1942139:** Size: 13.3"L x 1.0"Dia.

*Web Code: FXC

| Part No. | Description | 1 | 5 |
|---|---|---|---|
| 2168261 | Electric desolder pump℞ | $26.95 | $23.95 |
| 2131021 | Vacuum desolder pump | 11.95 | 10.95 |
| 1942139 | Manual desolder pump℞ | 8.95 | 7.95 |
| 19166 | Manual desolder pump | 8.95 | 7.95 |
| 2168270 | 1 tips for 2168261℞ | 5.95 | 5.49 |
| 2158776 | 1 tip for 2131021 | 2.95 | 2.49 |
| 2146610 | 1 tip for 1942139 | 1.95 | 1.69 |
| 22091 | 2 tips for 19166 | 5.95 | 5.39 |

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Solderless Breadboards & Prototyping Boards

- Ideal for high frequency and low noise circuits
- Pins are identified by numbered rows and columns
- 0.1" hole spacing
- Components are easily interconnected using 20-28 AWG wire
- One-year warranty

★Web Code: HAC

20812

21435

**Circuit Patterns**

A Pad Per Hole

B Power/Ground Perimeter Bus with Pad Per Hole

C 3 Hole Solder Pad and Bus

| Part No. | Manufacturer | Product No. | Terminal Strips | Bus Strips | Contact Points | Binding Posts | Breadboard Size (L" x W") | Baseplate Size (L" x W") | Wt. (lbs.) | Pricing 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 94457 | ValuePro | JE19R* | 0 | 2 | 100 | 0 | 6.5 x 0.4 | — | 0.04 | $2.95 | $2.49 | $2.19 | $1.95 |
| 2155452 | ValuePro | WBP-317 | 1 | 0 | 170 | 0 | 1.9 x 1.3 | — | 0.03 | 2.95 | 2.69 | 2.49 | 2.19 |
| 2155461 | ValuePro | WBP-323 | 1 | 2 | 270 | 0 | 2.6 x 1.6 | — | 0.05 | 3.95 | 3.69 | 3.29 | 2.95 |
| 20601 | ValuePro | JE21R# | 1 | 2 | 400 | 0 | 3.3 x 2.1 | — | 0.13 | 5.95 | 5.49 | 4.95 | 4.49 |
| 20723 | ValuePro | JE23R# | 1 | 2 | 830 | 0 | 6.5 x 2.2 | — | 0.30 | 9.95 | 8.95 | 7.95 | 6.95 |
| 194272 | Wisher | JE34R# | 2 | 3 | 1,560 | 3 | 6.5 x 4.0 | 8.5 x 4.7 | 0.73 | 19.95 | 17.95 | 15.95 | 13.49 |
| 20758 | ValuePro | JE24R# | 2 | 1 | 1,360 | 2 | 6.5 x 3.1 | 8.5 x 4.0 | 0.60 | 15.95 | 14.49 | 12.95 | 11.95 |
| 20774 | ValuePro | JE25R# | 2 | 4 | 1,660 | 3 | 6.5 x 4.4 | 8.5 x 5.2 | 0.70 | 22.95 | 20.95 | 18.95 | 16.95 |
| 136901 | Wisher | WBU504 | 2 | 3 | 1,855 | 4 | 5.3 x 5.6 | 7.5 x 6.3 | 0.90 | 23.95 | 21.95 | 19.95 | 17.95 |
| 20791 | ValuePro | JE26R# | 3 | 5 | 2,390 | 4 | 6.9 x 5.8 | 9.1 x 6.9 | 1.10 | 29.95 | 27.95 | 24.95 | 21.95 |
| 20812 | ValuePro | JE27R# | 4 | 7 | 3,220 | 4 | 7.3 x 7.5 | 9.5 x 8.3 | 1.40 | 36.95 | 34.95 | 31.95 | 28.95 |

* Pack of 2 # Interconnect with other #listed above

## Prototyping Boards

★Web Code: PBH

| Part No. | Product No. | Size (W" x L") | Fits Enclosure(s) (see below & web) | Circuit Pattern | Hole Pads | # Holes x Dia. | Power/Ground Buses | Connector I/O or Edge | # Mounting Holes x Dia. | Wt. (lbs.) | Pricing 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105100 | 2855PCBR | 1.60 x 2.70 | 18922 | A | Single-sided | 288 x .035" | None | None | 2 x .115" | .02 | $5.95 | $5.49 | $4.95 | $4.49 |
| 105111 | 2300PCBR | 2.40 x 3.40 | 11870 | B | Single-sided | 637 x .038" | 4 | None | 2 x .140" | .03 | 7.95 | 7.19 | 6.49 | 5.95 |
| 263207 | PCB-463R | 2.40 x 4.10 | — | A | Plated through | 640 x .042" | None | None | 4 x .120" | .05 | 8.95 | 7.95 | 6.95 | 5.95 |
| 263215 | PCB-858R | 2.50 x 4.25 | 18893 | C | Plated through | 640 x .042" | None | D-sub 25/USB/RJ45 | 4 x .120" | .05 | 8.95 | 7.95 | 6.95 | 5.95 |
| 105162 | 2852PCBR | 3.60 x 7.00 | 18906, 11973 | A | Single-sided | 2225 x .035" | 4 | None | 4 x .140" | .10 | 13.95 | 12.49 | 10.95 | 9.95 |
| 21435 | JE401(8001)R | 4.50 x 6.50 | 18869 | A/C | Single-sided | 2360 x .042" | 2 | None | None | .12 | 16.95 | 15.49 | 13.95 | 11.95 |

## Breadboard Pin to Breadboard Pin Test Leads

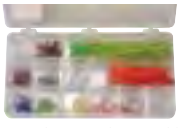
421315

| Part No. | Manufacturer | Description | 1 | 10 | 50 |
|---|---|---|---|---|---|
| 421315 | ValuePro | Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 24 AWG wire, 5.9" wire length (150mm) | $10.95 | $9.95 | $8.95 |
| 2150467 | Dagu | 140-piece jumper wire kit, 100 male-male cables (40mm, 80mm, 120mm), 40 female-female cables (40mm, 80mm), 5 colors | 11.95 | 10.95 | 9.95 |
| 2117106 | SchmartboardR | Jumper wire kit (10 pack), each 7" long, 22AWG, color: blue, includes a 40-pin header | 6.95 | 6.49 | 5.95 |

## Wire Jumper Kits

★Web Code: LAS

- 0.1" to 5.0" lengths (14 sizes)
- Clear plastic durable case • Pre-stripped/preformed
- 22 AWG solid wire jumpers in 10 colors


19290

| Part No. | Description | 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|
| 2127718 | 70-piece kit, 5 of each lengthR | $6.95 | $6.39 | $5.75 | $5.25 |
| 2096018 | 140-piece kit, 10 of each lengthR | 9.95 | 8.95 | 7.95 | 6.95 |
| 19290 | 350-piece kit, 25 of each lengthR | 16.95 | 14.95 | 12.95 | 10.95 |
| 20080 | 350 pieces, refill for 19290R | 11.95 | 10.95 | 8.95 | 6.95 |

## Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue

★Web Code: LAS

126342

| Part No. | Cross Ref. No. | Length (mm/inch) | 1 | 10 | 100 |
|---|---|---|---|---|---|
| 126360 | J-50-RR | 50/1.97 | $5.95 | $5.49 | $4.95 |
| 126342 | J-100-RR | 100/3.94 | 5.95 | 5.39 | 4.95 |
| 126325 | J-200-RR | 200/7.87 | 6.95 | 6.29 | 5.49 |

## Digital Design Lab

Our most popular digital lab!

★Web Code: LAJ

- Fixed power supply: +5VDC @ 1.0A
- Digital voltmeter • One-year warranty

**Solderless Breadboard**

- Interconnected nickel-plated 1580 tie points

**DC Power Supplies**

- DC supplies equipped with short-circuit protection
- Variable DC power: 0 to ±15V @ 0.3A

**Function Generator (6 ranges)** • Sine/triangle wave output: 0-5Vp-p variable

- Frequency ranges: 0.1Hz–2Hz, 1Hz–20Hz, 10Hz–200Hz, 100Hz-2kHz, 1kHz–20kHz, 10kHz –200kHz • Square wave output: 0-15Vp-p

**Universal Counter** • 1Hz-100MHz, with 8-digital 7-segment LED display

**Includes:** Power cord and manual

| Part No. | Description | Size (W" x D" x H") | Wt. (lbs.) | 1 | 5 |
|---|---|---|---|---|---|
| 75839 | Digital labR | 10.6 x 13.3 x 5.0 | 8.1 | $469.95 | $449.95 |
| 1952599 | Replacement breadboard | 4.5 x 6.75 x 0.37 | 0.5 | 29.95 | 26.95 |

## ABS Plastic Enclosures

★Web Code: UAL

Lid for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are interior dimensions.

18914

| Part No. | Cross Ref. No. | Size (L x W x D) | 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|
| 18922 | H2855R | 3.1" x 2.0" x 0.9" | $3.49 | $3.19 | $2.89 | $2.49 |
| 18914 | H2853R | 4.9" x 2.5" x 1.5" | 3.95 | 3.59 | 3.19 | 2.75 |
| 18893 | H2851R | 6.0" x 3.5" x 1.9" | 4.95 | 4.49 | 3.95 | 3.49 |
| 18906 | H2852R | 7.5" x 4.3" x 2.3" | 7.49 | 6.79 | 5.95 | 5.49 |

## Die-Cast Aluminum Enclosures

Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Includes screws.

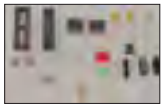
11973

| Part No. | Cross Ref. No. | Size (L x W x D) | 1 | 10 | 50 | 100 |
|---|---|---|---|---|---|---|
| 11957 | B5002 | 3.9" x 2.0" x 1.0" | $7.95 | $7.49 | $6.49 | $5.95 |
| 11965 | B5004 | 4.7" x 2.6" x 1.4" | 10.95 | 10.49 | 9.49 | 8.95 |
| 11973 | B5006 | 7.5" x 4.3" x 2.4" | 19.95 | 19.49 | 17.95 | 16.95 |

★For additional products, availability and specifications visit Jameco.com and enter the Web Code in the product search box

## Arduino Microcontrollers, Kits, Shields & Accessories

Arduino is an open-source physical computing platform based on a simple microcontroller board. Create interactive objects that can read inputs from a variety of switches, sensors and computers to control lights, motors and other physical outputs. The shields are expansion boards that sit atop an Arduino and broaden the functions, from motor control to prototyping.


2151259

2151486

2170222

2121148

2152366

2121121

2171188

2152403

2144489

### Microcontroller Boards

★Web Code: ARD

| Part No. | Manufacturer | Mfr. Part No. | Description | Dimensions (L" x W" x H") | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|
| 2151259 | KitPro | BB-Arduino | Build an Arduino-compatible circuit, Atmega328P, assembly required, breadboard/PCB not included | — | $13.95 | $12.95 |
| 2151486 | Arduino | A000066℞ | Uno Rev. 3, Atmega328 (DIP), 14 digital I/O, 6 analog I/O, USB, ICSP, 32K flash | 2.7 x 2.1 | 27.95 | 25.95 |
| 2170222 | Arduino | A000062℞ | Due, with 32-bit ARM core MCU, 54 digital I/Os, 12 analog inputs, 4 UARTs, 84MHz clock, 512kB flash | 4.3 x 2.1 | 49.95 | — |
| 2121148 | Arduino | A000005℞ | Nano v3.1, ATmega328, 14 digital I/O (6 PWM), 8 analog input, 0.6" wide breadboard-ready,USB mini-B | 0.7 x 1.7 | 38.95 | 36.95 |
| 2152366 | Arduino | A000067℞ | Mega2560 Rev. 3, 54 digital I/O (14 PWM), 16 analog input, 256K flash. ATmega16U2 USB-Serial converter | 4.3 x 2.1 x 0.6 | 54.95 | 49.95 |
| 2121121 | KitPro | KIT-GSA℞ | Get Started w/ Arduino kit, includes book, Arduino Uno, breadboard, LEDs, switches. No solder required | — | 69.95 | 64.95 |
| 2171188 | Arduino | K000007 | Arduino Starter kit includes Uno Rev. 3 & 38 other components w/ book of 15 projects to learn and build | — | 99.95 | — |

### Shields for Arduino (Arduino sold separately)

★Web Code: AOS

| Part No. | Manufacturer | Mfr. Part No. | Description | Dimensions (L" x W") | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|
| 2144411 | DFRobot | DFR0009 | LCD Shield. 16x2, HD44780 compatible. White text, blue backlight, uses LCD4Bit library | 2.7 x 2.1 | $17.95 | $16.95 |
| 2152403 | Arduino | A000079℞ | Arduino MotorShield Rev. 3. Dual full-bridge for inductive loads like relays, solenoids, DC/Stepping motors. 2A per ch., 4A max. | 2.7 x 2.1 | 29.95 | 28.49 |
| 2135734 | Rogue Robotics | AP-RMP | MP3 playback module without stacking headers. Module only. Supports MMC/SD/SDHC up to 32GB | 2.7 x 2.1 | 59.95 | 54.95 |
| 2152374 | Arduino | A000072℞ | Arduino Ethernet Shield Rev. 3 w/ µSD slot. PoE ready. Connects to LAN w/ Ethernet Library. Compatible w/ MEGA boards | 2.7 x 2.1 | 37.95 | 35.95 |
| 2153799 | Parallax | 130-35000 | Robotics Shield kit mounts on BOE-BOT chassis (not incl.) features 40+ hands-on activities | 5.0 x 3.3 | 134.95 | 124.95 |

### Sensors, Accessories and Miscellaneous Kits

★Web Code: AOA

| Part No. | Manufacturer | Mfr. Part No. | Description | Dimensions (L" x W" x H") | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|
| 2134993 | ValuePro | PROTO KIT | 830-contact breadboard with 70-piece jumper wire kit for easy prototyping | 6.5 x 2.5 | $13.95 | $12.95 |
| 2144665 | PowerSwitch Tail | 80135 | Power cord switch. Control outlet with microcontroller, 3-prong, 15A @ 125VAC, 5V control signal | 4.0 x 2.1 x 1.5 | 29.95 | 26.95 |
| 2144489 | ValuePro | 2601510235340Z | Conductive sewing thread. Size 92, 234/34 (4 ply), 50Ω/meter. Perfect for Lilypad or wearables | 400'+ reel | 29.95 | 26.95 |

## PowerFilm. Flexible Thin Film Solar Modules

★Web Code: AEK

### Wireless Electronics Series

The Wireless Electronics Series offers a new opportunity to solve the old problem of limited power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin and durable.

228013

| Part No. | Mfr. Part No. | Operating Voltage | Operating Current (mA) | Size (L x W x T) Inches | Size (L x W x T) mm | Pricing 1 | Pricing 5 | Pricing 25 |
|---|---|---|---|---|---|---|---|---|
| 227985 | SP3-37 | 3.0 | 22 | 2.5 x 1.5 x .01 | 64 x 37 x 0.2 | $3.95 | $3.49 | $3.15 |
| 227993 | TX3-25 | 3.0 | 25 | 4.5 x 1.0 x .01 | 114 x 25 x 0.2 | 3.95 | 3.49 | 3.15 |
| 171061 | MP3-37 | 3.0 | 50 | 4.5 x 1.5 x .01 | 114 x 37 x 0.2 | 5.95 | 5.35 | 4.79 |
| 228013 | MPT3.6-75 | 3.6 | 50 | 2.9 x 3.0 x .01 | 74 x 75 x 0.2 | 6.95 | 6.49 | 5.95 |
| 228030 | SP4.2-37 | 4.2 | 22 | 3.3 x 1.5 x .01 | 84 x 37 x 0.2 | 5.95 | 5.35 | 4.79 |
| 228056 | MPT4.8-150 | 4.8 | 100 | 3.7 x 5.9 x .01 | 94 x 150 x 0.2 | 15.95 | 14.95 | 13.95 |
| 228064 | MPT6-75 | 6.0 | 50 | 4.5 x 3.0 x .01 | 114 x 75 x 0.2 | 12.95 | 10.95 | 9.95 |
| 228072 | MPT6-150 | 6.0 | 100 | 4.5 x 5.9 x .01 | 114 x 150 x 0.2 | 19.95 | 17.95 | 15.95 |
| 228099 | MP7.2-150 | 7.2 | 200 | 10 x 5.9 x .02 | 253 x 150 x 0.6 | 37.95 | 34.95 | 32.95 |
| 228101 | MPT15-75 | 15.4 | 50 | 10 x 3.0 x .02 | 253 x 75 x 0.6 | 19.95 | 17.95 | 15.95 |
| 228110 | MPT15-150 | 15.4 | 100 | 10 x 5.9 x .02 | 253 x 150 x 0.6 | 39.95 | 35.95 | 31.95 |

### WeatherPro Series

The right choice for permanent outdoor applications that are directly exposed to the elements. These modules feature rugged construction, a UV-stabilized surface, an extra edge seal for weather protection, and tin-coated copper leads that extend from the module.

228161

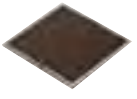
| Part No. | Mfr. Part No. | Operating Voltage | Operating Current (mA) | Size (L x W x T) Inches | Size (L x W x T) mm | Pricing 1 | Pricing 5 | Pricing 25 |
|---|---|---|---|---|---|---|---|---|
| 228161 | P7.2-75 | 7.2 | 100 | 10.3 x 3.9 x .04 | 270 x 100 x 1.1 | $34.95 | $31.49 | $28.25 |
| 228195 | PT15-150 | 15.4 | 100 | 10.3 x 6.9 x .04 | 270 x 175 x 1.1 | 49.95 | 46.95 | 44.95 |
| 228208 | PT15-300 | 15.4 | 200 | 10.3 x 12.8 x .04 | 270 x 325 x 1.1 | 99.95 | 89.95 | 79.95 |

## 60mm Solar Panel

★Web Code: AEK

- Clear coat plastic
- Power output: 0.25W max.
- Volt. output: 4.7VDC to 5VDC
- Size: 2.36"L x 2.36"W x 0.1"Thick
- Material: copper indium diselenide

Photovoltaic Mini Module



| Part No. | Description | 1 | 5 | 25 |
|---|---|---|---|---|
| 1928142 | Solar panel | $7.95 | $6.95 | $6.25 |

## Mini-Panel Solar Cells

★Web Code: AEK

### Ready to Use, No Soldering!

Mini-panels are secured in a plastic body with a prismatic cover to help capture all available light. 6" red/black wires attached.

200221

**2113666:** Solar Cell Grab Bag
- Contains fragile cells of various sizes with 0.5V output
- No leads attached and require soldering

2113666

| Part No. | Mfr. P/N | VDC @ mA | Size (L x W) | 1 | 5 |
|---|---|---|---|---|---|
| 2136913 | SOL1 | 0.5 @ 400 | 2.8" x 1.8" | $6.49 | $5.95 |
| 200221 | SOL4 | 2.0 @ 200 | 3.0" x 3.7" | 10.95 | 9.95 |
| 215319 | 4-3.0-100 | 3.0 @ 100 | 3.8" x 2.5" | 12.95 | 11.95 |
| 2140373 | 750-00030℞ | 6.0 @ 167 | 4.9" x 2.5" | 12.95 | 11.95 |
| 215327 | 4-6.0-50 | 6.0 @ 50 | 3.8" x 2.5" | 14.95 | 13.49 |
| 2113666 | SC-GRAB | Solar cell grab bag (min. 40pcs/bag, sizes vary) | | 9.95 | 8.95 |

℞ RoHS compliant product. Jameco obtains RoHS compliance status information from its suppliers solely and does not verify or confirm such status.

## Arduino Microcontroller Boards, Shields and Kits

★Boards & Kits Web Code: ARD ★Shields Web Code: AOS

Arduino is always coming out with new exciting products. Here are some of their latest to keep you building, programming and learning.

| Part No. | Mfr. Part No. | Description | Price |
|---|---|---|---|
| 2193441 | A000008 | Arduino Yún with Atheros processor, built-in Ethernet and WiFi, microSD slot, 20 digital I/O pins | $74.95 |
| 2170222 | A000062R | Arduino Due with 32-bit ARM core MCU, 54 digital I/O pins, 12 analog pins, 4 UARTs, 512kB flash | 49.95 |
| 2193459 | A000096 | TFT LCD Screen with backlight and headers, microSD slot, 1.77" diagonal, 160x128 pixel resolution | 26.95 |
| 2171188 | K000007 | Arduino Starter Kit with 15-project book, UNO Rev3, breadboard, USB cable and over 100 components | 99.95 |
| 2193467 | A001078 | Arduino Robot with motor board, control board, 2 processors, color TFT screen, 2GB microSD card | 269.95 |

2193441

2170222

2171188

2193467

## Phone Halo Wallet TrackR

★Web Code: WID

Locate anything in seconds using your iPhone or Android. The TrackR app runs on your iPhone, iPad or Android device and connects to TrackR devices that have been attached to your frequently misplaced belongings such as keys, wallets, purses, luggage, etc.

- Cross Platform Operation – Works on iPhone 4s & Later, iPad Retina & Later, Samsung Galaxy S3, Note 2, S4 and Android 4.3 devices
- 2-Way Ringer Function – Quickly find your lost item or phone (even if it's on silent)
- Item Location with GPS – Displays a map showing where all your items are located
- Multiple Item Tracking – A single phone or tablet can track up to 10 items simultaneously
- Free TrackR App (downloadable on the Apple App Store and Google Play)
- No Recharging – Easily replaceable batteries last up to two years
- Distance Indicator – Displays distance between yourself and your items
- Completely Customizable by You – Customize your experience with sounds, alert settings, and more
- Powerful Bluetooth v4.0 – Bluetooth Low Energy (BLE) designed for proximity monitoring applications communicating with Smartphones and other BLE 4.0 compliant devices
- Crowd Sourced Tracking – If you lose an item or have an item stolen, the TrackR community is put on alert.

NEW MARKED IN PINK

| Part No. | Mfr. Part No. | Size (H x W x Thick) | Price |
|---|---|---|---|
| 2203901 | WT001 | 1.57" x 2.56" x 0.016" | $19.95 |

## Link Instruments PC-Based Oscilloscope and Logic Analyzer

★Web Code: RCG

Not only handy and portable by combining a 2GSa/s oscilloscope and 200MSa/s logic analyzer, these will also connect directly to your PC without the need for an external power supply!

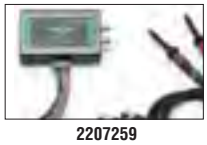
- Bandwidth: 60MHz
- USB communication and USB powered
- Advanced triggering: level/edge, glitch, pulse width, 8-bit digital, I2C, SPI
- SPI and I2C decoding
- 100MHz Spectrum Analyzer/FFT
- Fast, accurate measurements
- Data storage with save and export capabilities
- 8-channel pattern generator (P/N 2207241)

**2207241 includes:** One 1x/10x switchable probe, one wire harness and 9 LA clips
**2207259 includes:** Two 1x/10x switchable probes, one wire harness and 10 LA clips

NEW MARKED IN PINK

| Part No. | Mfr. Part No. | Description | 1 | 5 |
|---|---|---|---|---|
| 2207241 | MSO-19 | 1 oscilloscope input, 8 logic output analyzer inputs and 8 pattern generator output | $249.95 | $234.95 |
| 2207259 | MSO-28 | 2 oscilloscope inputs and 8 logic analyzer inputs | 324.95 | 314.95 |

2207241


2207259

## littleBits Electronic Modules that Snap Together

★Web Code: ERK

littleBits are bite-size circuit-boards (not edible!) designed with specific functions and click together with magnets. There is no soldering, no programming and no wiring; just snap together for endless learning and fun.

**2196713:** 18 color-coded modules including a sound trigger, light wire, a DC and servo motor, RGB LED, buzzer, button, pulse, slide dimmer, latch, inverter, power plug and more.

**2196713:** Synth kit collaboration with KORG. Make a Keytar or your own modular synthesizer with 12 modules such as signal generator, oscillator, keyboard, sequencer, filter, envelope, speaker and more.

littleBits

NEW MARKED IN PINK

| Part No. | Mfr Part No. | Description | Price |
|---|---|---|---|
| 2196705 | 650-0121R | Deluxe kit builds 15 projects with 18 bits, 9V battery and cable included | $199.95 |
| 2196713 | 650-0124R | Synth kit builds 10 projects with 12 bits, 9V battery and cable included | 159.95 |

2196705

## Gearhead and DC Motors

★DC Motors Web Code: FBN ★Gearhead Web Code: KBB

| Part No | Mfr. | Mfr. Part No. | Rated Voltage (V) | Speed (RPM) | @ Max. Efficiency Current (mA) | Torque (g-cm) | Motor Size (Dia." x Depth") | Pricing 1 | Pricing 10 |
|---|---|---|---|---|---|---|---|---|---|
| 2192755 | Mabuchi | FA-130RA | 1.5 | 6990 | 660 | 6.0 | 0.8 x 1.0 | $3.49 | $2.95 |
| 2158442 | Nichibo | RF-500TB-18280-RR | 3 | 2104 | 175 | 68.01 | 1.25 x 0.77 | 2.25 | 1.95 |
| 2158434 | Nichibo | RF370CH-22170-RR | 6 | 4787 | 450 | 173.3 | 0.96 x 1.2 | 2.25 | 1.95 |
| 2192878 | Nichibo | RK-520-17310-RR* | 12 | 104 | 423 | 1749 | 1.3 x 0.9 | 17.95 | 15.95 |
| 2167437 | Johnson | HC970 | 12 | 3308 | 500 | 4654 | 2.0 x 2.7 | 9.95 | 8.95 |
| 2197476 | Nichibo | MD3B-14280-RR* | 12 | 5214 | 327 | 42.89 | 1.1 x 1.3 | 19.95 | 17.95 |
| 2167681 | Nichibo | DC-130SB-10410R | 12 | 5624 | 200 | 71.2 | 0.8 x 1.1 | 1.95 | 1.75 |
| 2192421 | Nichibo | HP5BFN-2670-RR | 24 | 9346 | 1050 | 1.93 | 0.7 x 1.9 | 6.95 | 5.95 |

*Gearhead motor

2192755

2192878

2197476

2192421

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## Green Power Supplies

These incredibly efficient power supplies are some of the most environmentally friendly of the Mean Well line. They meet some of the most stringent standards such as EISA 2007, NRCan, and Energy Star CEC Level IV or V.

1952345

1940740

EPS-15

### Table-Top Power Supplies

| Part No. | Mfr. Part No. | Output Voltage @ Current | Description | Efficiency (%) | Pricing 1 | Pricing 5 |
|---|---|---|---|---|---|---|
| 1940416 | GS18A12-P1JU | 12V @ 1.5A | 3-Wire, 2.1x5.5mm, 90-264VAC, CEC IV, AC cord included | 81 | $11.95 | $10.95 |
| 1952345 | GS40A12-P1J | 12V @ 3.34A | 3-Wire, 2.1x5.5mm, 90-264VAC, NRCan/ErP/EISA compliant | 89 | 15.95 | 14.49 |
| 1940432 | GS18A15-P1J | 15V @ 1.2A | 3-Wire, 2.1x5.5mm, 90-264VAC, CEC IV, AC cord included | 81 | 11.95 | 10.95 |
| 1954295 | GS60A15-P1J | 15V @ 4A | 3-Wire, 2.1x5.5mm, 90-264VAC, CEC Level V, Class I, EISA | 88.5 | 17.95 | 15.95 |
| 1940547 | GS25B24-P1J | 24V @ 1.04A | 2-Wire, 2.1x5.5mm, 90-264VAC, CEC Level IV, Class II, EISA | 83 | 11.95 | 10.95 |
| 1940643 | GS25A28-P1J | 28V @ 0.89A | 3-Wire, 2.1x5.5mm, 90-264VAC, CEC Level IV, Class I | 83 | 11.95 | 10.95 |

### Wall Adapters

| | | | | | | |
|---|---|---|---|---|---|---|
| 1940740 | GS12U05-P1I | 5V @ 2A | 2-Wire, 2.1x5.5x9.5mm, 90-264VAC, CEC Level IV, Class II, EISA | 72 | $10.49 | $8.95 |
| 380173 | GS25U15-P1J | 15V @ 1.66A | 2-Wire, 2.1x5.5x11mm, 90-264VAC, CEC Level IV, Class II, EISA | 82 | 11.95 | 10.95 |
| 1940803 | GS12U24-P1I | 24V @ 0.5A | 2-Wire, 2.1x5.5x9.5mm, 90-264VAC, CEC Level IV, Class II, EISA | 80 | 10.49 | 8.95 |
| 1952898 | GS18U24-P1J | 24V @ 0.75A | 2-Wire, 2.1x5.5x11mm, 90-264VAC, CEC Level IV, Class II, EISA | 84 | 11.95 | 10.95 |
| 380244 | GS25U48-P1J | 48V @ 0.52A | 2-Wire, 2.1x5.5x11mm, 90-264VAC, CEC Level IV, Class II, EISA | 84 | 11.95 | 10.95 |

### Open-Frame Power Supplies

NEW MARKED IN PINK

| | | | | | | |
|---|---|---|---|---|---|---|
| 2174071 | EPS-15-5 | 5V @ 3A | 2.5"x1.8"x0.94", overload protection for 135% rated output, EN55022 | 78 | $7.95 | $7.25 |
| 2164421 | EPS-35-12 | 12V @ 3A | 3"x2"x0.94", overload protection for 170% rated output, EN55022 | 87 | 12.49 | 11.49 |
| 2164519 | EPS-45-12 | 12V @ 3.75A | 4"x2"x1.1", overload protection for 160% rated output, EN55022 | 87 | 13.95 | 12.95 |
| 2164674 | EPS-65-12 | 12V @ 5.42A | 4"x2"x1.1", overload protection for 160% rated output, EN55022 | 86 | 14.95 | 13.95 |
| 2174119 | EPS-15-24 | 24V @ 0.625A | 2.5"x1.8"x0.94", overload protection for 135% rated output, EN55022 | 83 | 7.95 | 7.25 |
| 2164359 | EPS-25-24 | 24V @ 1.05A | 3"x2"x0.94", overload protection for 170% rated output, EN55022 | 88 | 11.95 | 10.95 |
| 2164691 | EPS-65-24 | 24V @ 2.71A | 4"x2"x1.1", overload protection for 160% rated output, EN55022 | 88 | 14.95 | 13.95 |

## 120x120x38mm Ball Bearing AC Tubeaxial Fans

Here are some of our most popular AC tubeaxial fans. Select from multiple manufacturers and a variety of specifications.

COMMONWEALTH ™ ADDA Thermaltake TOYO FAN CORP.

*Web Code: ABJ

2125931

2197695

2133801

| Part No. | Manufacturer | Mfr. Part No. | AC Voltage | Air Flow (CFM) | Speed (RPM) | Noise (dBA) | Current (mA) | Power (W) | Agency Approvals | Connection | Pricing 1 | Pricing 10 | Pricing 50 | Pricing 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2125931 | Commonwealth | FP108-1 | 110/120 | 112/120 | 2700/3000 | 40/45 | 250/190 | 18/19 | UL/CSA/TUV/CE | 12" leads | $10.95 | $9.95 | $8.95 | $7.95 |
| 2155049 | Toyo | TAC12038115HT | 115 | 105 | 3000 | 47 | 180 | 17 | UL/CSA/CE | Terminals | 10.95 | 9.95 | 8.95 | 7.95 |
| 2151072 | Sunon | SF1212ADBL.GN | 115/220 | 95/115 | 2700/3100 | 44/49 | 270/240 | 21.5/19 | UL/CSA/CE | 12" leads | 12.95 | 11.95 | 10.49 | 8.95 |
| 2197695 | Thermactive | SAL1238B3A-L | 120 | 91 | 2450 | 40 | 200 | 13 | UL/CUL/CE | 12" leads | 11.95 | 10.95 | 9.95 | 8.95 |
| 2197441 | Orion | 0A109AP-11-1WB | 120 | 110 | 3000 | 37 | 220 | 15 | UL/CUL | 12" leads | 15.95 | 14.49 | 12.95 | 11.49 |
| 2197687 | Thermactive | SAH1238B3A-L | 120 | 111 | 3000 | 44 | 300 | 24 | UL/CUL/CE | 12" leads | 13.95 | 12.95 | 11.49 | 10.95 |
| 2133801 | Adda | AA1282DB-AT | 220 | 74.7 | 1650 | 39.2 | 60 | 8 | UL/CUL/TUV/CE | Terminals | 9.95 | 8.95 | 7.95 | 6.95 |

## Contact Information

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